

A REVISION OF THE TRIBE COLPURINI FROM AUSTRALIA
(HEMIPTERA-HETEROPTERA-COREIDAE)

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Four new genera (*Grosshygia*, *Grosshygioides*, *Pachycolpuroides* and *Woodwardhygia*); one new subgenus, *Hygia* (*Australocolpura*); and eight new species (*Grosshygia lobatula*, *G. monticeps*, *G. nigra*, *Grosshygioides mandibularis*, *H. (A.) sandaracine*, *P. monteithi*, *W. bifida*, and *Sciophyrus australicus* are added to the Colpurini (Coreidae) of Australia. These, along with previously known Australian coreids, are described, illustrated and keyed. *Acanthotyla fasciata* and *Sciophyrus sortita*, long known from New Guinea, are recorded on northern Cape York Peninsula, the first Australian record. □ *Insecta, Hemiptera, Heteroptera, Coreidae, Colpurini Australia, taxonomy, rainforest.*

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This contribution summarizes knowledge of the tribe Colpurini (Hemiptera, Heteroptera, Coreidae) for the Australian region, bringing together information from the literature and from previously unstudied collections. A number of species now known to be present in Australia were either undescribed or were previously known only from New Guinea or adjacent islands to Australia's north.

The Australian Colpurini have never been revised. The first species recorded were by Breddin (1900) who described one new genus and two new species from the region under the binomial names, *Pachycolpura manca* and *Acantholybas brunneus*. The third known species was *Acantholybas kirkaldyi* (Bergroth, 1909), described from 'Tasmania'. The fourth and last previously known Australian species was *Agathyrma praecellens* Stål (1861) described from Aru Islands and later recorded from New Guinea, D'Entrecasteaux Islands, Bismarck Archipelago, Waigeo, Ternate, Misool and Australia (Dolling, 1987).

The Australian members of the tribe Colpurini are usually black or dark coloured. Among the unique aspects of this tribe are the striking structural differences in the hemelytra, as well as the great diversity in the male genital capsule and in the female genital plates, in contrast to other tribes of coreids (Brailovsky, 1990). They are typically species of the rainforest where species occur on the ground associated with piles of freshly dead leaves from recently fallen trees. This revision brings the known Australian fauna to 15 species in 13 genera. Queensland has the richest fauna with 13 species. There are 5 species

in northern New South Wales. The only record from a state other than Queensland and New South Wales is of the problematic *Acantholybas kirkaldyi* from Tasmania. This locality needs confirmation.

In the following text I include all the species of Colpurini now known from Australia and describe four new genera, one new subgenus and eight new species.

The following abbreviations are used to identify institutions where types are deposited or which generously lent material for this paper: ANIC- Australian National Insect Collection, Canberra; BPBM Bernice P. Bishop Museum, Honolulu, Hawaii; BMNH- The Natural History Museum, London, England; CAS- California Academy of Sciences (Golden Gate Park); DEI- Deutsches Entomologisches Institut, DDR, Germany; IBUNAM- Colección Entomologica del Instituto de Biología, Universidad Nacional Autónoma de México; QMBA- Queensland Museum, Brisbane, Australia; SAMA- South Australian Museum, Adelaide, Australia; UQIC- University of Queensland Insect Collection, Brisbane, Australia; ZIL- Zoological Institut, Leningrad, USSR; ZMUH- Zoological Museum, University of Helsinki. Geographical abbreviations are: FNEQ, NEQ, MEQ, SEQ - far north-eastern, northeastern, mideastern, southeastern Queensland; NENSW - northeastern New South Wales.

All measurements are given in millimetres.

The name of Dr G.B. Monteith is shortened to GBM in the lists of specimens.

KEY TO THE KNOWN AUSTRALIAN COLPURINI

1. Each side of head immediately in front of eyes with a long, pointed spine (Figs 12A,B)
..... *Pachycolpura manca* Breddin
Sides of head in front of eyes unarmed 2
2. Tylus projecting as a single, large, acute spine 3
Tylus globose, truncated or bifid 5
3. Femora unarmed; callar region of pronotum conspicuously convex; pronotal disc behind middle line with a transverse wrinkle; male genital capsule with a small median projection
..... *Acanthotyla fasciata* (Walker)
Femora strongly armed with long, sharp ventral spines; callar region of pronotum weakly convex to flat; pronotal disc without transverse wrinkle; posteroventral edge of male genital capsule without median projection 4
4. Mandibular plate armed with a short projection; posteroventral edge of male genital capsule convex, obtusely rounded *Agathyrna praececellens* Stål
Mandibular plate unarmed; posteroventral edge of male genital capsule elongate and bifurcate
..... *Woodwardhygia bifida* sp. nov. (in part)
5. Antenniferous tubercles armed 6
Antenniferous tubercles unarmed 10
6. Bucculae armed with an obvious spine near the middle third; scutellum longer than wide
..... *Acantholybas brunneus* Breddin*
Bucculae uniformly rounded 7
7. Micropterous; hemelytral membrane reduced to a small flap; ocelli inconspicuous; head with dorsal region convex to globose in lateral view; abdominal sternite VII of female with plica and fissura 8
Macropterous to submacropterous; hemelytral membrane well developed; ocelli clearly developed; head with dorsal region practically flat in lateral view; abdominal sternite VII of female without plica or fissura
..... *Pachycolpuroides monteithi* sp. nov.
8. Head wider than long; apex of scutellum globosic; hemelytra reaching anterior third of abdominal segment II *Grosshygia nigra* sp. nov.
Head longer than wide; apex of scutellum subacute; hemelytra reaching median third of abdominal segment III 9
9. Antenniferous tubercles armed with long lobes (Fig. 11A); antennal segment II longer than 1.96mm
..... *Grosshygia lobatula* sp. nov.
Antenniferous tubercles armed with a short lobe (Fig. 11B); antennal segment II shorter than 1.73mm *Grosshygia monticeps* sp. nov.
10. Abdominal sternite VII of female without plica or fissura: frontal angles of pronotum rounded, blunt, not produced 11

11. Body length shorter than 10.10mm; posteroventral edge of male genital capsule produced into medium and wide lateral projections, enclosing a deep, U-shaped concavity (Fig. 3B)
..... *Sciophyrus diminutus* Horvath
Body length longer than 10.30mm; posteroventral edge of male genital capsule not as above 12
12. Posteroventral edge of male genital capsule with a small V-shaped concavity, with its lateral arms shorter (Fig. 3C) *Sciophyrus sortita* (Horvath)
Posteroventral edge of male genital capsule, with a very large U-shaped concavity, laterally enclosed by two strong divergent arms (Fig. 3A)
..... *Sciophyrus australicus* sp. nov.
13. Mandibular plate armed with a large prominent tubercle, pronotal disc with a deep longitudinal furrow along midline; hemelytra staphylinoid, membrane absent
..... *Grosshygioides mandibularis* sp. nov.
Mandibular plate unarmed; pronotal disc flat, without midline furrow; macropterous; hemelytral membrane well developed 14
14. Femora armed with two rows of ventral spines; tylus apically bifid
..... *Woodwardhygia bifida* sp. nov. (in part)
Femora unarmed; tylus apically globose
..... *Hygia (Australocolpura) sandaracine* sp. nov.
* = *Acantholybas kirkaldyi* Bergroth not available.

Acantholybas brunneus Breddin (Figs 6E,F, 15A)

Acantholybas brunnea Breddin, 1900: 40-41.

MATERIAL EXAMINED

SEQ: 3 ♂♂, 3 ♀♀ : Brisbane, 20.iii.1930, 1.iv.1965, C. Hembrow and viii.1971, M.B. Malipatil. 4 ♀♀ : Mt Glorious, 13.ix.1966, GBM. 1 : Tamborine, A.M. Lea. 1 ♀ : Central Station, Fraser Is., 14-15.x.1978, GBM. NSW: 1 ♀, Tooloom Plateau via Urbenville, 31.x.1970, GBM. ANIC, BPBM, QMBA, UQIC, IBUNAM.

DIAGNOSIS

Largely dull orange yellow; tylus globose; antenniferous tubercles armed with a large, sharp, pointed spine; bucculae with a short, blunt mesal projection; femora unarmed or with small denticles along their ventral surface; pronotal margins straight; macropterous. Spermatheca: Bulb elongate, duct heavily coiled, chamber slender.

DISTRIBUTION

Lowlands and plateaux from NNSW to SEQ, north to Fraser Is. (Fig. 15A). Breddin described

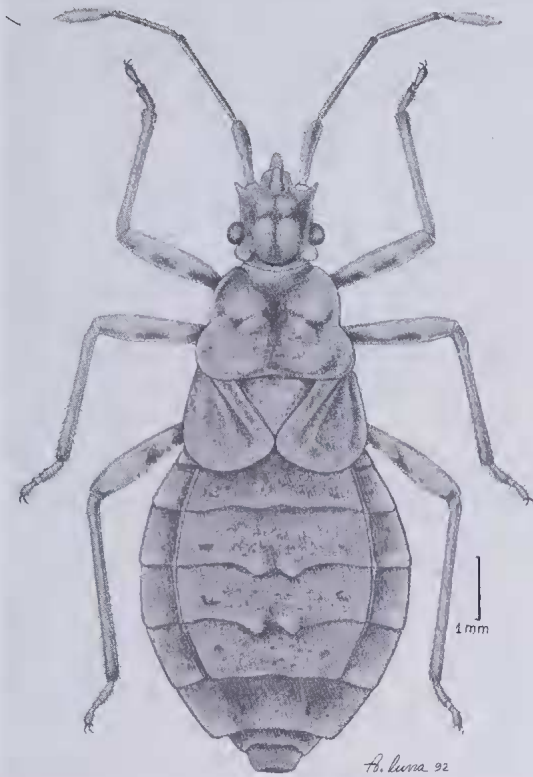


FIG. 1. Dorsal view of *Grosshygia lobatula* sp. nov., ♀.

A. brunneus from New South Wales, without definite locality.

***Acantholybas kirkaldyi* Bergroth**
(Fig. 15A)

Acantholybas kirkaldyi Bergroth, 1909: 185-186.

This species was described from Tasmania without definite locality. I have not been able to locate the type specimen which was a male 10mm long. No additional material was available for this study.

Bergroth (1909) distinguished *A. kirkaldyi* from *A. brunneus* Breddin because the latter species has the rostrum longer, the pronotum shorter, the abdominal sterna with a median furrow and the posteroventral edge of the male genital capsule conspicuously sinuate.

***Acanthotyla fasciata* (Walker)**
(Figs 10C, 15A)

Cletus fasciatus Walker, 1871: 196-197.

MATERIAL EXAMINED

FNEQ: 1 ♂, 2 ♀♀: Iron Ra., Cape York Pen., 5-10.v.1968 and 30.vi-4.vii.1977, GBM. 3 ♂♂: West Claudie R., Iron Ra., 3-10.xii.1985, GBM & D. Cook. 1 ♂, 1 ♀: Cape York, Rocky R., 1958, Darlington. 1 ♂: Gordon Ck, Iron Ra., 16.x.1974, M.S. Moulds. QMBA, SAMA, UQIC, IBUNAM.

DIAGNOSIS

Pale yellow, punctures orange to dark brown red and with a median black red longitudinal stripe located on prosternum, mesosternum, metasternum, abdominal sternite III to VII and between callar region of pronotum; each antenniferous tubercles armed with a short lobe; tylus projecting in front of jugae, upturned to form a median acute horn at apex; mandibular plates armed with a prominent tubercle; bucculae with small spiny anterior projection; callar region of pronotum globose; pronotal disc with posterior lobe wrinkled; macropterous; abdominal sternite VII of female without plica or fissura.

DISTRIBUTION

In Australia from only the lowland rainforests of central Cape York Peninsula (Fig. 15A). This species was originally described from Misool (Walker, 1871) and was later recorded from New Guinea (Stål, 1873). It is here recorded from Australia for the first time.

***Agathyrna praecellens* Stål**
(Figs 10A, 15A)

Agathyrna praecellens Stål, 1861: 145.

PREVIOUS RECORDS

Northern Queensland: Cape York Peninsula and Iron Range (Dolling, 1987).

MATERIAL EXAMINED

FNEQ: 9 ♂♂, 1 ♀: West Claudie R., Iron Ra., 3-10.xii.1985, GBM & D. Cook. 3 ♂♂, 1 ♀: Gordon's Mine area, Iron Ra., 12-18.ii.1976, GBM. IBUNAM, QMBA, UQIC.

DIAGNOSIS

Largely bright orange red; femora strongly denticulate; antenniferous tubercles truncate; tylus projecting in front of jugae, upturned to form a small robust horn at apex; mandibular plates armed with a prominent tubercle; bucculae with small spiny anterior projection; pronotal margins straight; pronotal disc without posterior wrinkle; macropterous; abdominal sternite VII of female without plica or fissura.

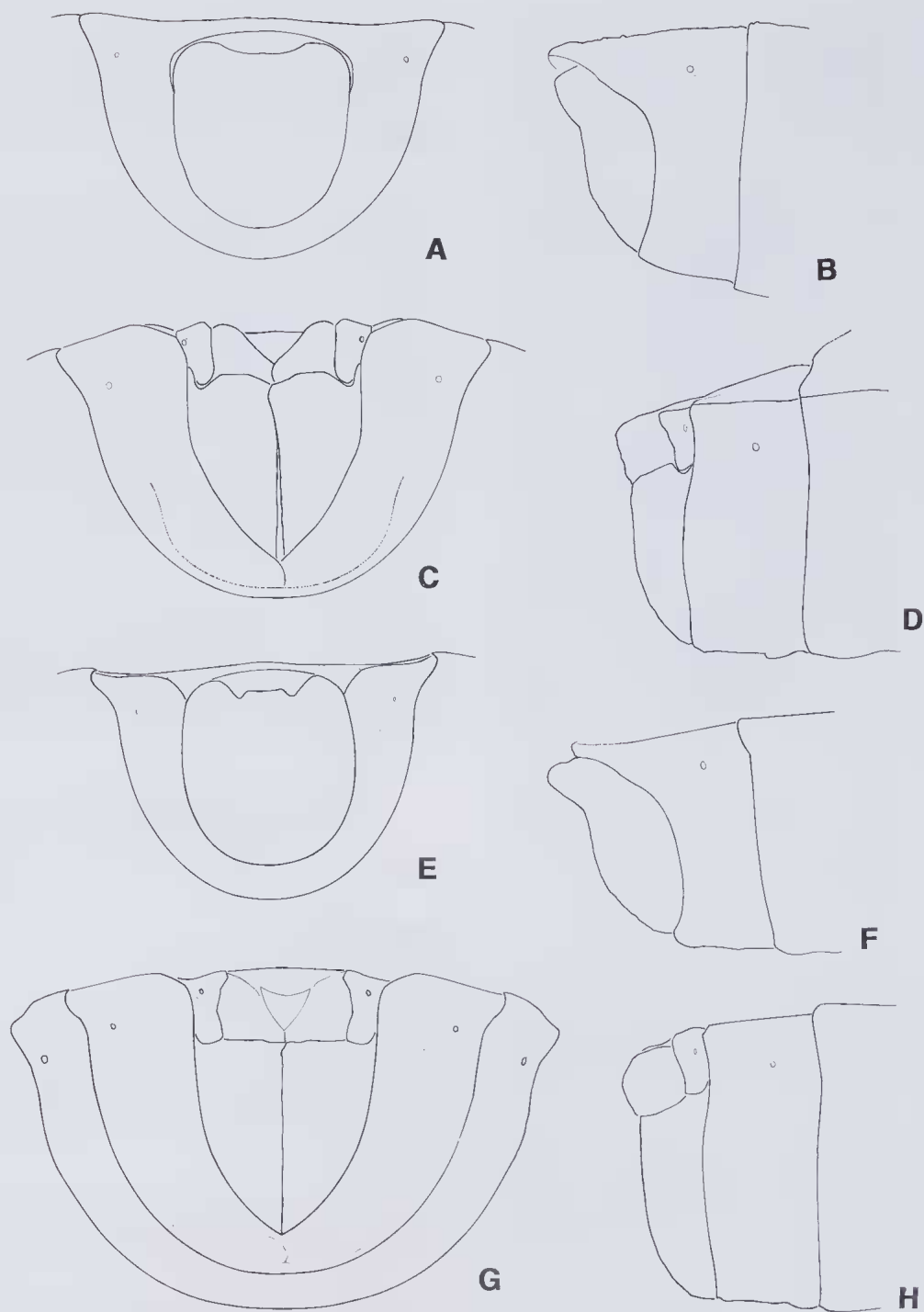


FIG. 2. *Grosshygia* spp. nov.: *Grosshygia lobatula* ♂ genital capsule, posterior view (A), lateral view (B); ♀ genital plates, posterior view (C), lateral view (D); *G. monticeps* ♂ genital capsule, posterior view (E), lateral view (F); ♀ genital plates, posterior view (G), lateral view (H).

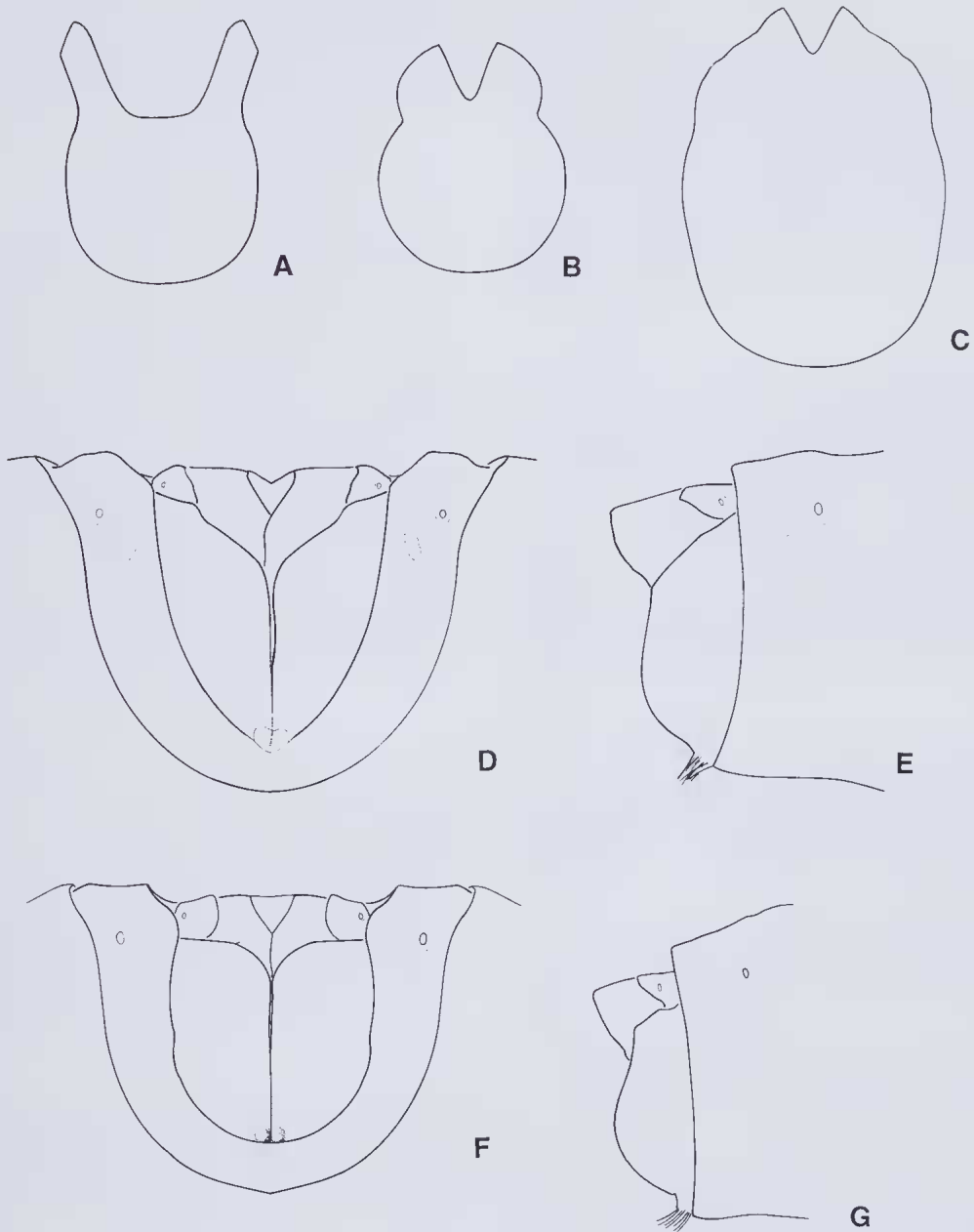


FIG. 3. *Sciophyrus* spp. ♂♂ genital capsules; *S. australicus* sp. nov. (A), *S. diminutus* Horvath (B), *S. sortita* (Horvath) nov. comb (C); ♀♀ genital plates, *S. australicus* sp. nov.; posterior view (D), lateral view (E); *S. diminutus* Horvath posterior view (F), lateral view (G).

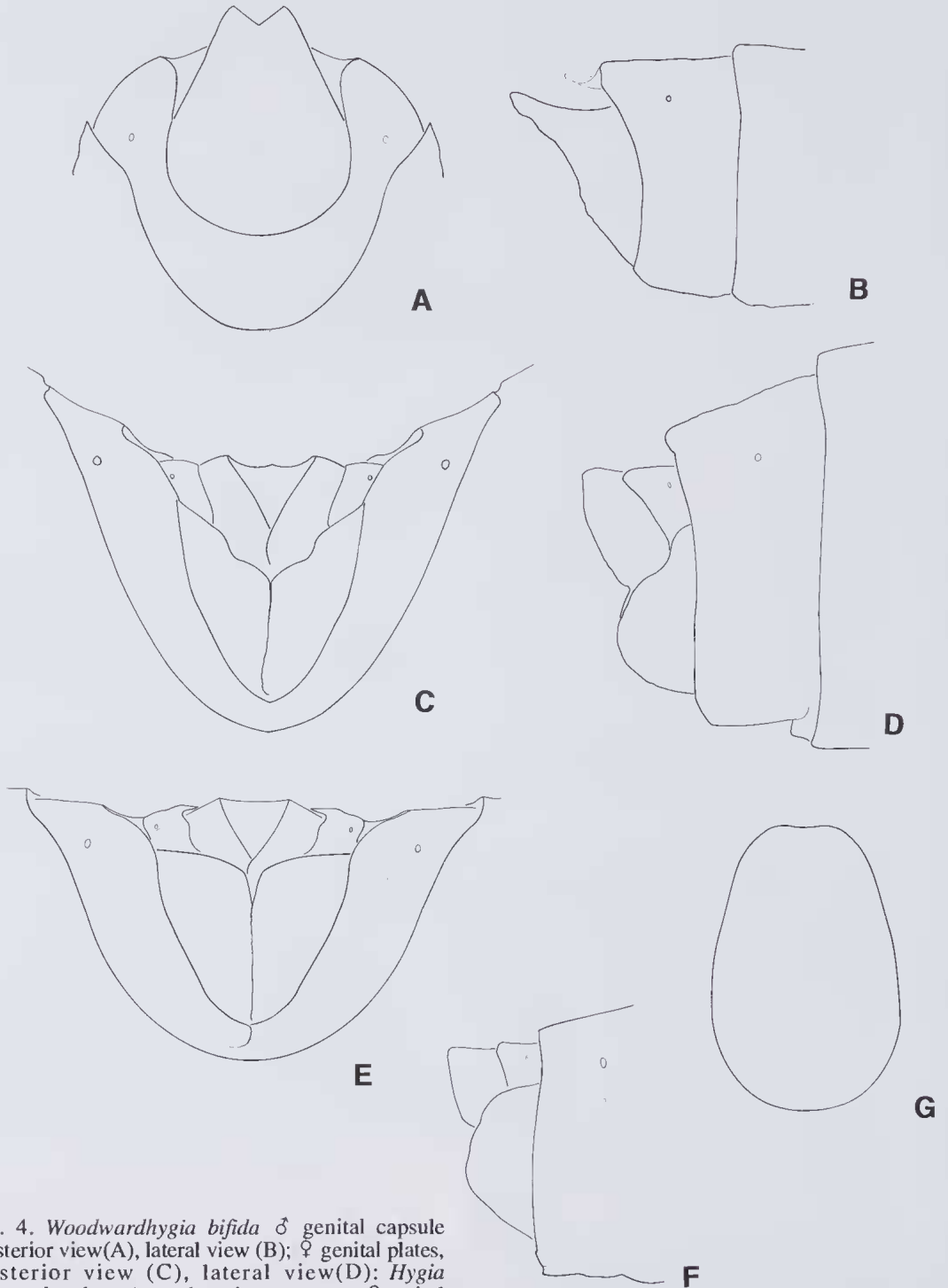


FIG. 4. *Woodwardhygia bifida* ♂ genital capsule posterior view (A), lateral view (B); ♀ genital plates, posterior view (C), lateral view (D); *Hygia (Australocolpura) sandaracine* sp. nov. ♀ genital plates, posterior view (E), lateral view (F), ♂ genital capsule in posterior view (G).

DISTRIBUTION

In Australia from only lowland rainforests of Iron Ra., FNEQ (Fig. 15A). This is the most common and widespread species of the genus. Described from Aru Islands, and later recorded from Australia, New Guinea, D'Entrecasteaux Islands, Bismarck Archipelago, Waigeo, Ternate, and Misool (Dolling, 1987).

***Pachycolpura manca* Breddin**
(Figs 6C,D, 12A,B, 15B)

Pachycolpura manca Breddin, 1900: 39-40.

MATERIAL EXAMINED

NSW: 4 ♂♂, 4 ♀♀ Sydney, Lea. 3 ♂♂ Parramatta, Macarthur's Bridge, 29.iii-12.iv.1980, R. Patterson. 1 ♀ : Carlingford, 10.X.1970, F.H. Uther Baker. SEQ: 1 ♀ : Mt Glorious, 24-28.ii.1961, J.L. and M. Gressitt. 1 ♀ : Bunya Mts, 19.xi.1967, J. and M Sedlacek. 2 ♂♂, 1 ♀ : Bald Mt. area, via Emu Vale, 16-20.ii.1970 3-4000', GBM. 3 ♂♂, 7 ♀♀ : Brisbane, 17.iii.1957, J.H. Martin. 3 ♂♂, 2 ♀♀ : South Pine River, 17.i.1963, GBM. 1 ♀ : Whiteside Xing, N Pine River, 12.vii.1963, GBM. 1 ♀ : Ravensbourne, 15.ix.1971, B. Cantrell. 1 ♀ : Bald Mtn area, via Emu Vale, 27-31.i.1972 3-4000', GBM. 1 ♀ : Indooroopilly, 7.ix.1979, G. Gordh. ANIC, BPBM, BMNH, CAS, IBUNAM, QMBA, SAMA, UQIC, ZIL.

DIAGNOSIS

Largely dull pale ochre yellow, with brown and orange reflections; sides of head in front of eyes with a long and pointed spine; antenniferous tubercles and femora unarmed; tylus globose; macropterous to brachypterous (*sensu* Slater, 1975) bucculae with small spiny anterior projection; abdominal sternite VII of female entirely fissurated. Spermatheca: bulb somewhat elongate, duct relatively coiled, chamber more or less globose. Parameres, Figs 6C,D.

DISTRIBUTION

Widespread, Sydney, NSW to Brisbane and Bunya Mts, SEQ (Fig. 15B) This species is described from Australia (Breddin 1900, Blöte 1936, Kumar 1966).

NOTES

Kumar (1966) described the life history stages and recorded its feeding on stinging nettles (*Urtica dioica* L.), tomatoes, pumpkins and *Coreopsis lanceolatus* L.

***Sciophyrus diminutus* Horvath**
(Figs 3B,F,G, 5C-E, 13A, 15B)

Sciophyrus diminutus Horvath, 1900: 635.

MATERIAL EXAMINED

FNEQ, NQ, SEQ: 7 ♂♂, 7 ♀♀ : Cape York, Lockerbie area, 13-27.iv.1973, GBM. 1 ♀ : Upper Mulgrave R., 1-3.xii.1965, GBM. 2 ♂♂, 2 ♀♀ : Cape York Pen., Iron Ra., 28.iv-17.v.1968, GBM, 16-23.xi.1965, GBM. 4 ♂♂, 2 ♀♀ : Kowanyama, 7.i.1977, D.L. Hancock. 1 ♂ : Mt Webb NP, 50km N Cooktown, 11-14.vii.1976, G.B. and S. Monteith. 7 ♂♂, 8 ♀♀ : Hibberd Pt, Weipa, 3-5.ii.1976, GBM. 1 ♂ : Mt Glorious, 7.V.1959, A.C. Robinson. IBUNAM, QMBA, SAMA.

DIAGNOSIS

Surface dull, dark brown, with orange or pale ochre yellow reflections; size less than 10.10mm; antennal segments I to III pale orange hazel with basal third pale yellow; antennal segment IV yellow with basal and apical third pale brown; macropterous; posteroventral edge of male genital capsule extending into medium and wide lateral projections, enclosing a deep U-shaped concavity (Fig. 3B); parameres, Figs 5C-E. The genital plates of the female are straight, with a dorsoventral enlargement and with external face of gonocoxa I clearly convex (Figs 3F,G).

DISTRIBUTION

Widespread on both eastern and western Cape York Peninsula, south to the Mulgrave R., NEQ. One specimen is labelled 'Mt Glorious' but this locality needs confirmation since it is 1500km beyond the range of the other specimens (Fig. 15B).

This species was originally described from Thursday Island and later recorded from Kei Islands and New Guinea (Horvath, 1919 and Blöte 1936).

***Sciophyrus sortita* (Horvath) nov. comb.**
(Figs 3C, 5J,K, 13B, 15B)

Colpura sortita Horvath, 1900: 635-636.

MATERIAL EXAMINED

FNEQ 1 ♂ : W Claudie R., Iron Ra., 3-10.xii.1985 (50m), GBM & D. Cook 2 ♂♂ : Iron Ra., Cape York Pen., 5-10.v.1968, GBM. Same locality, 4.vii.1977, GBM. 2 ♂♂ : Cape York, Lockerbie area, 13-27.iv.1973, GBM. IBUNAM, QMBA.

DIAGNOSIS

This is a large striking species, similar in colour

and habitus to *S. australicus* sp. nov., but differing in having the posteroventral edge of male genital capsule with a small 'V' concavity, with lateral arms conspicuously shorter (Fig. 3C); parameres like Fig. 5J,K. Anterior and middle femora armed; posterior femora unarmed; anterior lobe of pronotum mostly smooth; macropterous. Female: Unknown.

DISTRIBUTION

In Australia, known only from the rainforests of Lockerbie and Iron Ra., FNEQ (Fig. 15B). This species was originally described from New Guinea and was known only from there until now.

Sciophyrus australicus sp. nov. (Figs 3A,C,D, 5A, 13C, 15B)

MATERIAL EXAMINED

HOLOTYPE ♂: NEQ: Mt Fisher, 7km SW Millaa Millaa, 27-29.iv.1982 (1050-1100m), GBM, Yeates and Cook, in QMBA (T12708).

PARATYPES: NEQ: 3 ♂♂, 1 ♀: Malanda Falls, 9.xii.1989 (750m), GBM, Thompson & Janetzki, 2 ♂♂ and 1 ♀ in QMBA and 1 ♂ in IBUNAM. 1 ♀: Bakers Blue Mt., 17km W Mt Molloy, 11.ix.1981 (900m), GBM & D. Cook, in QMBA. 1 ♀: Townsville, 19.i.1964, J. Sedlacek, in CAS. 4 ♂♂. Broadwater Park, 35km NW Ingham, 16.xii.1986 (60m), GBM, Thompson & Hamlet, 3 in QMBA and 1 in IBUNAM. 3 ♀♀: Mt Fisher, 7km WNW Cape Tribulation (site 2), 23.ix-7.x.1982 (50m) GBM, Yeates & Thompson, in QMBA. 1 ♂, 2 ♀♀: Kirrama Ra. (Yuccabine Ck. area), 9-12.xii.1986 (600m), GBM, Thompson & Hamlet, 1 ♂ & 1 ♀ in QMBA and 1 ♀ in IBUNAM. 1 ♀: Kirrama SF, via Cardwell, 17-18.viii.1966, GBM in UQIC. 1 ♀: Mission Beach, 128km S Cairns, 19-20.i.1964, J. Sedlacek, in CAS. 1 ♂: Cooper Ck, 18m N Daintree R., 14.xi.1969, T. Weir in UQIC. 1 ♂: Lacey's Creek, Mission Beach, 21.iv.1970, GBM, in UQIC. 1 ♂: Upper Little Mulgrave R., SW Cairns, 4.ix.1969, J.E. Tobler, in QMBA. 3 ♂♂, 2 ♀♀: Upper Mulgrave rd, Kearney's Falls, 10.xii.1988, GBM & Thompson, 2 ♂♂ 2 ♀♀ in QMBA and 1 ♂ in IBUNAM. 2 ♂♂: Kirrama Ra. (Barracks area) 11-12.xii.1986 (600m), GBM, Thompson & Hamlet in QMBA. 7 ♂♂, 12 ♀♀: Bellenden Ker Range, Cableway Base Stn, 17-31.x.1981 (100m), GBM, 5 ♂♂ & 10 ♀♀ in QMBA & 2 ♂♂ & 2 ♀♀ in IBUNAM. 1 ♂: Baldy Mt. rd, SW Atherton, 10.x.1980 (1200m), GBM in QMBA. 1 ♂: Palmerston NP, via Innisfail, 7-8.viii.1968, B. Cantrell, in UQIC. 1 ♂ Mossman Gorge, 7.xii.1966, B. Cantrell in UQIC. 1 ♂, 1 ♀: Lake Eacham, 24.ix.1970, GBM, female in UQIC. male in IBUNAM. 1 ♂: The Boulders, via Babinda, 15.xii.1966, B. Cantrell in UQIC. 1 ♂, 1 ♀: Upper Mulgrave R., 30.iv.1970, GBM, in UQIC. 2 ♀♀: Upper Mulgrave R., 1-3.xii.1965, GBM, in UQIC. 1 ♂, 1 ♀: Wallaman Falls, via Ingham, 7.viii.1968, B.

Cantrell in UQIC. 1 ♂: Mossman Gorge, via Mossman, 28.xii.1967, B. Cantrell in UQIC. 1 ♂: Henrietta Ck, Palmerston NP, 29.xii.1964, GBM in IBUNAM. 1 ♂. Kauri Ck, Tinaroo Dam, 24.iv.1970, G.B. Monteith in UQIC. 1 ♀: Malanda Falls, 11.v.1970, GBM in UQIC. 1 ♂, 3 ♀♀: Upper Mulgrave, via Gordonvale, 26-27.xii.1967, GBM, 1 ♂ & 2 ♀♀ in UQIC & 1 ♀ in IBUNAM. 1 ♂: Kirrama Ra. (Douglas Ck rd), 9-12.xii.1986 (800m), GBM, Thompson & Hamlet in QMBA. 1 ♂: Shipton's Flat, via Helenvale, 20-27.vii.1974, GBM & D. Cook, in QMBA. 2 ♂♂: Cape Tribulation, 12-19.x.1980, GBM in QMBA. 1 ♂: Flying Fish Pt, 21.i.1965, E.C. Dahms in QMBA. 1 ♂: Millaa Millaa Falls, 4.xii.1965, GBM in UQIC. 1 ♂, 2 ♀♀: Henrietta Ck, Palmerston NP, 5.xii.1965, GBM in UQIC. 1 ♀: Rifle Ck, Black Mtn, 18km ESE Julatten, 13-14.iv.1982 (400m), GBM, Yeates & Cook in QMBA. 3: Hinchinbrook Is., Gayundah Creek, 7-15.xi.1984 (10m), GBM, Cook & Thompson, in QMBA. 1 ♀: Mossman Bluff Track, 5-10km W. Mossman, 1-16.i.1989 (360m), GBM, Thompson & ANZSES in QMBA. 1 ♀: Gordon's Mine Area, Iron R., 12-18.ii.1976, GBM, in QMBA.

DESCRIPTION

Male: Dorsal coloration: Orange brown, head and anterior lobe of pronotum alternating red brown or black spotting; following areas pale yellow: a longitudinal band running from the antenniferous tubercles to the neck, comprising the space between the eye and the ocelli and the superior area of the postocular tubercle, lateral margins of the pronotal collar, anterolateral borders of pronotum, external edge of humeral angles, an irregular spotting at the middle lobe of the pronotal disc and the greater part of the scutellar surface and its apex; antennal segments I and II ochre chestnut brown, with a shining orange red apex; segment III chestnut red and IV ochre yellow, with its basal third red brown and the apical third chestnut orange; hemelytral membrane amber brown with veins darker; connexival segments red brown, with posterior border yellow and most of the surface with orange reflections; abdominal segments orange red with the greatest part of VII orange brown. Ventral coloration: Chestnut orange on an ochre yellow background; following area chestnut orange to chestnut orange brown: middle head region, prosternum, mesosternum and metasternum as well as the area neighbouring the lobes of the metathoracic scent glands: rostral segments I to III chestnut orange and IV somewhat paler; neighbouring region of the inferior eye area pale yellow, anterior lobe of the metathoracic scent gland yellow, the posterior lobe chestnut orange; coxae red brown; trochanters yellow with some chestnut brown spots; femora red brown with two yellow rings, one

basal, the other one near the middle line, tibiae alternating two yellow rings with three chestnut brown to dark brown rings; tarsi chestnut brown with orange reflections on II and III; propleura and metapleura with a black half moon and mesopleura with an anterior irregular black spot; abdominal sternites with three-coloured pleural margin, upper one red brown, posterior one dark yellow and dark orange the rest.

Structure: Eyes medium sized, prominent; ocelli with large diameter and situated on a line such that their upper margin is level with the lower margin of eyes; rostrum almost reaching the posterior third of sternal segment V; rostral segment I reaching anterior margin of prosternum. Pronotum: Middle and posterior lobe densely punctate, inconspicuously striate; anterior lobe with small diameter punctures and some smooth areas; frontal angles blunt, slightly produced; anterolateral borders clearly emarginated and bilobate, with anterior lobe short and convex, and posterior one higher and convex; humeral angles rounded, not exposed, in lateral view feebly convex; posterolateral borders straight and somewhat sinuate; posterior border straight. Legs: Femora armed with a double row of minute denticles. Scutellum: Abruptly punctate and irregularly striate; apex short and blunt. Hemelytra: Macropterous, reaching the apex of the abdomen clavus; and corium with medium punctures except the posterior third of the corium which is smooth. Ventral surface densely punctate.

Genital capsule: Posteroventral margin with a pronounced U-shaped concavity, enclosed by two very open and conspicuously robust arms (Fig. 3A). Parameres: Fig. 5A,B.

Female: Coloration: Similar to male. Structure: Abdominal sternite VII without plica or fissura; abdominal segment IX trapeziform, short, with a narrow posterior border and a small U-shaped concavity, never deep.

Genital plates: Gonocoxae 1 straight, well developed, with an antero-posterior enlargement and with the external face entire, feebly convex; paratergite VIII small; paratergite IX medium sized and not conspicuously raised (Fig. 3D,E). Spermatheca: Bulb elongate, duct heavily coiled.

Measurements: ♂ first, then ♀: Head length: 1.50, 1.57; interocellar space: 0.45, 0.50; interocular space: 0.85, 0.87; width across eyes: 1.65; 1.70; preocular distance: 0.90, 0.97; length antennal segments: I, 1.65, 1.70; II, 2.30, 2.50; III, 1.70, 1.80; IV, 1.52, 1.55. Pronotum: Total length: 2.20, 2.32; width across frontal angles: 1.35, 1.45;

width across humeral angles: 3.35, 3.60. Scutellar length: 1.75, 2.00; width: 1.60, 1.70. Total body length: 10.60, 11.56.

DIAGNOSIS

S. australicus is easily distinguished by the pronounced U-shaped concavity at the posteroventral edge of the male genital capsule, which is laterally enclosed by two strong divergent arms (Fig. 3A). In *S. annulipes* Blöte, the related species, the posteroventral edge has two long and pointed arms and the U-shaped opening is less pronounced.

The female strongly resembles that of *S. annulipes*. The determination is based upon the locality labels, assuming that both sexes were collected at the same time; however the opening of the posterior border of the abdominal segment IX in *S. australicus*, is narrower than in *S. annulipes*.

DISTRIBUTION

Widespread and common in high and low elevation rainforest of the region between Cooktown and Townsville, NEQ (Fig. 15B). One specimen from Iron Ra. needs confirmation.

ETYMOLOGY

Relating to the collecting locality.

Grosshygia gen. nov.

DESCRIPTION

Head: Slightly longer than wide across eyes or wider than long, pentagonal to subquadrate, conspicuously convex dorsally; tylus unarmed, apically truncate, extending anteriorly to the jugae and more raised in lateral view; jugae unarmed, thickened and shorter than tylus; antenniferous tubercles armed, lobes raised, diverging anteriorly and apically acute or rounded or armed with short and robust lobes (Fig. 11A,B); sides of head in front of eyes unarmed and straight; antennal segment I robust, thickest, slightly curved outwards and shorter than head; segments II and III terete and slender; segment IV fusiform; antennal segments I, III, and IV subequal, II longest of all; ocelli not elevated, difficult to see and situated on a line where the upper margin does not reach the lower margin of the eyes; precellular pit deep; eyes small, globular; postocular tubercles protuberant, globose; bucculae rounded, short, elevated, not projecting beyond antenniferous tubercles, without teeth and with the external edges thickened; rostrum long, reaching the posterior margin

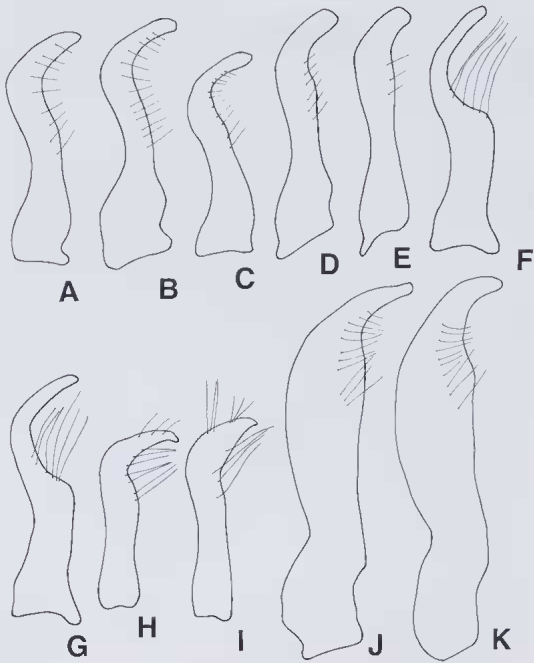


FIG. 5. Parameres, *Sciophyrus australicus* sp. nov. (A,B), *S. diminutus* Horvath (C-E), *Grosshygia lobatula* sp. nov. (F,G), *G. monticeps* sp. nov. (H,I), *Sciophyrus sortita* (Horvath) nov. comb. (J,K).

of abdominal sternite V or anterior margin of VI; rostral segment I reaching the posterior gular region; rostral segment IV longest, rostral II longer than I and III subequal to I; vertex globose, with slight transverse depression, dividing it into two elevations, the anterior one broader, irregularly nodulose and higher than posterior one which is slightly rounded.

Thorax: Pronotum quadrate, bilobed and not declivent, anterior lobe longer than posterior lobe, both with lateral margins convexly rounded, moderately elevated and slightly reflexed; anterior collar wide; posterolateral border straight and posterior border slightly concave; callar region transversely nodulose and separated along the middle line by a slightly longitudinal depression. Anterior lobe of metathoracic scent gland globose and reniform, posterior lobe sharp, small.

Legs: Unarmed; tibiae terete, with sulcus difficult to see, more slender than femora.

Scutellum: Triangular, wider than long, with subacute apex; disc convexly rounded.

Hemelytra: Micropterous, reaching anterior third of abdominal segment II or median third of abdominal segment III; wings reduced to small

pads separated from each other, leaving the abdomen exposed mesally; clavus and corium fused with raised veins; membrane absent or represented by a small lobe.

Abdomen: Connexival segments higher than body, posterior angles complete, not projected into spines; dorsal segments IV-V and VI-V with two mound-like projections to the sides of the middle line; abdominal sternites with medial sternal furrow extending to posterior border of sternite VI.

Integument: Body surface rather dull. Pronotum, scutellum and hemelytra with scattered punctation. Antennae and legs minutely granulate. Head, pronotum, scutellum, legs, hemelytra, thorax and abdomen with long or short decumbent to suberect conspicuous golden or silvery bristle-like hairs. Ventral surface with circular greyish-white farinose punctures.

Male genitalia: Genital capsule: Posteroventral margin protruding as a feeble lip with edge complete (Fig. 2A,B) or with a protruding margin slightly excavated on the mid-line. Parameres: simple and straight; anterior lobe convex and continuous with body; posterior lobe ending in a sharp and slender projection (Fig. 5F,G) or in a thick projection (Fig. 5H,I); space between posterior lobe and body wide and amply indented (Fig. 5F,G) or feebly concave (Fig. 5H,I).

Female genitalia: Abdominal sternite VII with plica and fissura evident; plica narrow and transversely evolved; gonocoxac I squarish, large; paratergite VIII short, square, with visible spiracle; paratergite IX squarish, and larger than former paratergite (Fig. 2C,D,G,H). Spermatheca with bulb globose, duct heavily coiled.

Diagnosis: Like *Lygaeopharus* Stål, with rounded bucculae, short, without sharp mesal projection, femora unarmed, tylus unarmed and apically truncated or globose and hemelytra short. The females of both genera have abdominal sternite VII with plica and fissura evident.

The two genera can be separated on the basis of the following combination of characters. In *Grosshygia* the antenniferous tubercles are armed with either large or short robust lobes, the cephalic dorsum is nodule-like, scutellum is wider than long and with a convexly rounded disc; gonocoxae I larger, squarish, straight and not protruding past the apex of paratergite IX when viewed laterally; abdominal sternite VII with plica transversely narrowed. In *Lygaeopharus* the antenniferous tubercles are unarmed, cephalic dorsum slightly convex, scutellum longer than wide with disc not globose and gono-

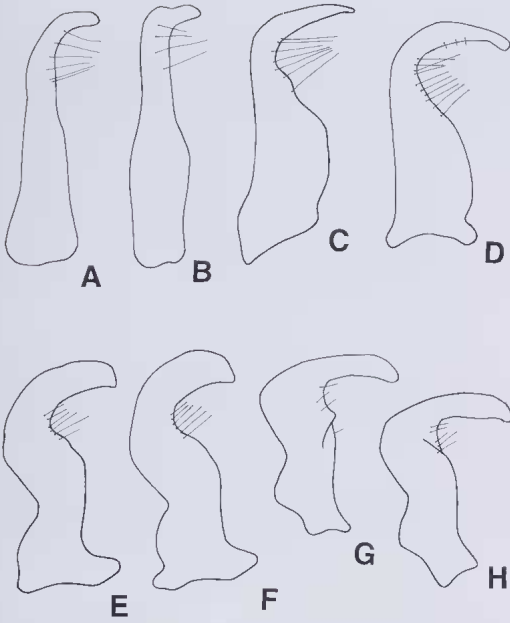


FIG. 6. Parameres, *Woodwardhygia bifida* sp. nov. (A,B), *Pachycolpura manca* Breddin (C,D), *Acantholybas brunneus* Breddin (E,F), *Pachycolpuroides monteithi* sp. nov. (G,H).

coxae I short, triangular, outwardly projecting, reaching further than the apex of paratergite IX; abdominal sternite VII triangular and very broad.

ETYMOLOGY

Named for Gordon F. Gross in recognition of his many contributions to the study of Australian Heteroptera.

TYPE SPECIES

Grosshygia lobatula sp. nov.

Grosshygia lobatula sp. nov.

(Figs 1, 2A-D, 5F,G, 11A, 16A)

MATERIAL EXAMINED

HOLOTYPE ♂: NEQ: Zillie Falls, via Millaa Millaa, 12.viii.1968, B. Cantrell, in QMBA (T12709).

PARATYPES: NEQ: 1 ♀: Downey Ck, 25km SE Millaa Millaa, 7.xii.1988, GBM & Thompson (400m) in QMBA. 1 ♂: Mission Beach, 7.xii.1965, GBM, in UQIC. 1 ♂, 1 ♀: Upper Boulder Ck, via Tully, 24-27.x.1983, GBM, Yeates & Thompson (650-900m), in QMBA. 6 ♂♂, 6 ♀♀: Palmerston NP, via Innisfail, 23-25.iv.1968 & 7-8.viii.1968, GBM & B. Cantrell, 4 ♂♂ & 4 ♀♀ in UQIC & 2 ♂♂ & 2 ♀♀ in IBUNAM. 3: Palmerston NP, Henrietta Ck, 29.xii.1964, GBM, in UQIC. 1 ♂, 1 ♀: Palmerston NP, 2.i.1990, GBM in IBUNAM & QMBA. 1 ♂, 1 ♀: Palmerston NP,

2.i.1990 (350-400m), GBM in QMBA. 1 ♀: Upper Boulder Ck, 11km N Tully, 5-7.xii.1989 (1000m), GBM, Thompson & Janetzki in QMBA.

DESCRIPTION

Coloration: Body dark red brown, with following areas bright yellow ochre: antennal segment IV (except base), a large spot located near posterior edge of connexival segment III to VI, rostral segments I to IV and posterior angle of connexival segment III to VI; coxal bright red brown; trochanters bicoloured, with external side hazel brown and internal side bright yellow; anterior and middle femora dark hazel brown; posterior femora dark hazel brown with three yellow rings, one subbasal, other almost mesal and the third one subdistal including the greater part of the posterior half; tibiae pale hazel brown; tarsi pale hazel brown with yellow reflections.

Structure: Antenniferous tubercle armed, with lobes raised, extremely long, diverging anteriorly and with the apex acutely rounded (Fig. 1). Genital capsule: Posteroventral edge complete (Fig. 2A,B). Parameres. Fig. 5F,G.

Female: Coloration: Similar to male. Genital plate. Fig. 2C,D.

Variation: The type material has some colour variation, present on practically each specimen: 1. Upper side of postocular tubercle yellow ochre or entirely yellow ochre. 2. Rostral segments I and II pale hazel orange. 3. Posterior margin of connexival segments III to VI entirely yellow ochre. 4. Pleural margin of abdominal sternites III to VI with posterior margin yellow ochre. 5. Abdominal sternites dark red brown and conspicuously spotted with yellow ochre. 6. Anterior and posterior lobes of metathoracic scent glands dark orange. 7. Anterior and middle femora dark red brown with pale yellow ochre reflections. 8. Posterior femora yellow with two pale brown rings, one subbasal, other almost mesal. 9. Posterior tibiae pale hazel orange with two yellow internal reflections. 10. Tarsi yellow.

Measurements: ♂ first, then ♀: Hcad length: 1.72, 1.82; interocellar space: 0.58, 0.60; interocellar space: 1.12, 1.16; width across eyes 1.64, 1.72; preocular distance: 1.32, 1.40; length antennal segments: I, 1.16, 1.14; II, 2.00, 1.96; III, 1.16, 1.16; IV, 1.24, 1.20. Pronotum: Total length of anterior lobe: 1.04, 1.08; total length of posterior lobe: 0.60, 0.60; total width of anterior lobe: 2.20, 2.36; total width of posterior lobe: 2.52, 2.56. Scutellar length: 0.88, 0.92. Width: 0.96, 0.98. Total body length: 9.66, 10.15.

DISTRIBUTION

In rainforest at high and low elevations, from southern Atherton Tableland to Mission Beach, NEQ (Fig. 16A).

ETYMOLOGY

Referring to the appearance of the antenniferous tubercles.

Grosshygia monticeps sp. nov.
(Figs 2E-H, 5H,I, 11B, 16A)

MATERIAL EXAMINED

HOLOTYPE ♂: NEQ: Upper Mulgrave R. via Gordonvale, 25.iv.1968, GBM & B. Cantrell, in QMBA (T12710).

PARATYPES: NEQ: 5 ♂♂, 1 ♀: same data as holotype; 4 ♂♂ in QMBA and 1 ♂ and 1 ♀ in IBUNAM. 2 ♂♂: Upper Mulgrave R., 1-3.xii.1965, GBM, 1 in QMBA & 1 in IBUNAM. 1 ♂: Graham Ra., 9.iv.1979, GBM, 100-200m, in QMBA. 2 ♂♂: Bellenden Ker Ra., 1 km S Cable Tower 6, 17.x-5.xi.1981, 500m, Earthwatch/QM, pyrethrum knockdown, in QMBA; 1 ♂: Upper Mulgrave R., 30.IV.1970, GBM, in UQIC.

DESCRIPTION

Coloration: Body dark red brown, with dark orange reflections and with following areas bright or dark yellow ochre: antennal segment IV (except base), postocular tubercle, posterior edge of connexival segments III to VII, rostral segments II to IV and posterior edge or posterior angle of abdominal sterna III to VI; rostral segment I hazel orange; anterior and middle femora dark red brown with diffused dark yellow ochre spots; posterior femora mostly pale yellow with two or three incomplete dark red brown rings; tibiae and tarsi pale yellow ochre with orange brown reflections.

Structure: Antenniferous tubercles with short and robust lobes (Fig. 11B). Genital capsule: Posteroventral edge protruding, indented towards the middle line and laterally excavated (Fig. 2E,F). Parameres. Fig. 5H,I.

Female: Coloration: Similar to male. Genital plate, Fig. 2G,H.

Variation: The type material has some colour variation, present on practically each specimen: 1. All femora pale yellow ochre including the apex and with two or three rings dark red brown. 2. All tibiae dark red brown, with two yellow rings, one subbasal and the other near middle. 3. Posterior edge of abdominal sterna VII dark yellow ochre.

Measurements: ♂ first, then ♀: Head length: 1.80, 1.68; interocellar space: 0.54, 0.54; inter-

ocular space: 1.14, 1.12; width across eyes: 1.68, 1.62; preocular distance: 1.28, 1.22; length antennal segments: I, 1.14, 0.92; II, 1.72, 1.60, III, 1.04, 0.96; IV, 1.12, 1.08. Pronotum: Total length of: anterior lobe; 0.96, 1.00; total length of posterior lobe: 0.64, 0.52; total width of anterior lobe: 2.24, 2.02; total width of posterior lobe: 2.72, 2.46. Scutellar length: 0.92, 0.88; width: 1.08, 0.94. Total body length: 10.00, 8.70.

DIAGNOSIS

This species is similar in colour and general habitus to *G. lobatula*. In *G. monticeps* the antennal segment II is shorter (1.60-1.72) and more robust, the antenniferous tubercle is armed with short and robust lobes (Fig. 11B) and the shape of the parameres (Fig. 2A,B,E,F) is quite distinctive. In *G. lobatula* antennal segment II is larger (1.96-2.00) and more slender and the antenniferous tubercle is armed with extremely long lobes (Fig. 11A).

DISTRIBUTION

This species occurs at lowland rainforest sites in a restricted high rainfall area around the Bellenden Ker Ra., NEQ (Fig. 16A).

ETYMOLOGY

Referring to the appearance of the head viewed laterally.

Grosshygia nigra sp. nov.
(Figs 13D, 14, 16B)

MATERIAL EXAMINED

HOLOTYPE ♂: NEQ: Stewart Ck, 4km NNEMt Spurgeon (Camp 1), 16°24'S 145°13'E, 15-20.x.1991 (1250-1300m), GBM, Janetzki, Cook & Roberts, in QMBA (T12711).

PARATYPES: NEQ: 1 ♂: same data as holotype, in IBUNAM. 1 ♂: 7km N Mt Spurgeon (Camp 2), 16°22'S 145°13'E, 17-19.x.1991 (1200-1250m), GBM, Janetzki, Cook & Roberts, in QMBA.

DESCRIPTION

Coloration: Body dark red brown, with following areas bright yellow ochre: antennal segment IV (except base), posterior edge of connexival segment III to VI and few spots scattered on the pronotal disc and on the abdominal sternites III to VI; coxae bright red brown; trochanters bright yellow with hazel brown reflections; femora pale yellow with four or five incomplete or complete hazel brown rings; tibiae and tarsi pale hazel brown. Structure: Head wider than long; antenniferous tubercle armed, with lobes, raised, ex-

tremely long, diverging anteriorly and with the apex acutely rounded; apex of scutellum globose. Hemelytra: Micropterous, reaching anterior third of abdominal segment II; membrane absent. Genital capsule: Posteroventral margin protruding as a feeble lip with edge complete.

Female: Unknown.

Variation: The type material has some colour variation. 1. Tibiae pale hazel brown with two yellow rings, one subbasal and the other almost mesial. 2. Tarsi pale yellow.

Measurements: ♂: Head length: 1.45; interocellar space 0.67; interocular space: 1.10; width across eyes: 1.55; preocular distance: 0.93; length antennal segments: I, 0.71; II, 1.14; III, 0.80; IV, 0.93. Pronotum: Total length of anterior lobe: 0.80; total length of posterior lobe: 0.43; total width of anterior lobe: 2.26; total width of posterior lobe: 2.63. Scutellar length: 0.65; width: 0.67. Total body length: 8.18.

DIAGNOSIS

Like *G. lobatula*, has the antenniferous tubercle armed with extremely long lobes, diverging anteriorly and with the apex acutely rounded and the male genital capsule has the posteroventral margin protruding as a feeble lip with edge complete. *G. nigra* can be recognized by its head wider than long, apex of scutellum globose and hemelytra extremely micropterous just reaching anterior third of abdominal segment II. In *G. lobatula* the head is longer than wide, apex of scutellum subacute and hemelytra longer, reaching median third of abdominal segment III.

DISTRIBUTION

From only higher, western parts of the Carbine Tableland, NW Mossman, NEQ (Fig. 16B).

ETYMOLOGY

From the latin *nigra*, black.

Grosshygioides gen. nov.

DESCRIPTION

Head: Longer than wide (across eyes), pentagonal, non declivent and dorsally flat; tylus unarmed, apically globose, extending anterior to jugae and more raised when viewed laterally; jugae unarmed, thickened and shorter than tylus, mandibular plates, directly below apices of jugae with a large prominent tubercle; antenniferous tubercles unarmed; sides of head in front of eyes unarmed, straight and longer than total length of eye; antennal segment I shortest, robust, thickest,

slightly curved outwards and shorter than length of head; segments II and III cylindrical, slender, IV fusiform; antennal segment II the longest and segment IV longer than III; ocelli absent; preocular pit obliquely deep; eyes small, globular; postocular tubercle protuberant, globose; bucculae rounded, short, elevated, not projecting beyond antenniferous tubercle, angulate, without teeth and with the external edges thickened; rostrum long, reaching anterior margin of abdominal sternite VI; rostral segment I shortest, reaching the posterior gular region; rostral segment IV longest and rostral segments II and III subequal.

Thorax: Pronotum wider than long, trapeziform, non declivent; anterior collar wide; frontal angles projecting forward as rounded teeth; anterolateral borders weak and obliquely convex; humeral angles rounded, not exposed; posterolateral borders straight; posterior border concave; callar region convex, separated along the midline by a deep longitudinal furrow, which extends to the posterior margin. Anterior lobe of metathoracic scent gland globose and reniform, posterior lobe sharp, small.

Legs: Unarmed; tibiae cylindrical, with sulcus difficult to see and more slender than femora.

Scutellum: Triangular, flat, wider than long, with apex subacute.

Hemelytra: Staphylinoid, reaching posterior third of abdominal segment III; clavus and corium fused into a coriaceous pad and the wings meeting each other along the midline; hemelytral membrane absent.

Abdomen: Connexival segments practically at the same level as abdominal segments; posterior angle of connexiva not extending into short spines; abdominal sternites with medial furrow extending to posterior border of sternite VI.

Integument: Body surface rather dull. Pronotum, scutellum and hemelytra scattered punctate. Head, antennae, pronotum, scutellum, legs, hemelytra, thorax and abdomen with short decumbent to suberect golden or silvery bristle-like hairs, intermixed with long erect bristles in antennal segments and legs. Ventral surface with circular grey-white farinose punctures.

Female genitalia: Abdominal sternite VII with plica and fissura; plica narrow, elevated and transversely evolved, gonocoxae I squarish, large; paratergite VIII short, square, with spiracle visible; paratergite IX larger than paratergite VIII.

DIAGNOSIS

The reduction of wings, the prominent pos-

ocular tubercle, the pronotal disk with a deep midline furrow and abdominal sternite VII of the female with plica and fissura might suggest a relationship with *Grosshygia* Brailovsky.

In *Grosshygioides* the antenniferous tubercles are unarmed; the dorsal head is flat and the mandibular plates are armed with a large and prominent tubercle. In *Grosshygia* the antenniferous tubercles are armed, the dorsal head is conspicuously globose and the mandibular plates are unarmed.

ETYMOLOGY

Named for its external similarity to *Grosshygia*.

TYPE SPECIES

Grosshygioides mandibularis, sp. nov.

Grosshygioides mandibularis sp. nov.

(Figs 7, 10B, 16A)

MATERIAL EXAMINED

HOLOTYPE: ♀ NEQ: Mt Finnigan, 37 km S Cooktown, 19-22.iv.1982, GBM, Yeates & Cook (850-1100m) in QMBA (T12712).

PARATYPE: 1 ♀: NEQ: 2.5 km SW Mt Hartley, 35 km S Cooktown, 23-24.iv.1982, GBM, Yeates & Cook, in IBUNAM.

DESCRIPTION

Coloration: Body dark red brown, with bright or dull orange reflections and with following areas red orange yellow: posterior third of connexival segments III to VII and pleural margins of abdominal sternites III to VII; antennal segments I to III dark red brown and IV light yellow with base dark red brown; dorsal view of postocular tubercle, spot behind eyes and apex of scutellum yellow ochre; rostral segments I-IV pale hazel brown, coxae bright red brown; trochanters bicoloured, with external side brown hazel and internal side bright yellow; femora dark red brown with following areas yellow: one subbasal ring and few scattered ventral spots; tibiae pale orange brown with two or three yellow rings: one subbasal, other almost mesal and the third one subdistal; tarsi pale hazel brown with anterior or middle third yellow.

Measurements: ♀ holotype: Head length: 1.73; interocular space: 1.02; width across eyes: 1.58; preocular distance: 1.33; length antennal segments: I, 1.20; II, 1.82; III, 1.14; IV, 1.30. Pronotum: Total length: 2.04; width across frontal angles: 1.76; width across humeral angles: 3.00. Scutellar length: 1.05; width: 1.14. Total body length: 12.03.

DISTRIBUTION

Rare, known from two adjacent high altitude localities S of Cooktown, NEQ (Fig. 16A).

ETYMOLOGY

Named for the appearance of the mandibular plate.

Hygia (*Australocolpura*) subgen. nov.

DESCRIPTION

Head: Wider than long (across eyes), pentagonal, not elongate, dorsally flat, with frons not higher than eyes; tylus unarmed, apically globose, extending anterior to jugae and a little higher than them in lateral view; jugae unarmed, slightly thicker and shorter than tylus; genae unarmed; antenniferous tubercles unarmed with truncated apex; antennal segment I the shortest, robust, thickest, slightly curved outwards and shorter than total length of head; segment II and III cylindrical and IV fusiform; antennal segment II the longest, segment IV longer than III; ocelli conspicuous, raised and situated on an hypothetical line with superior margin just touching the inferior margin of eyes; preocellar pit deep; eyes globose; postocular tubercles prominent; bucculae angulate, short, not extending beyond antenniferous tubercles, with small spiny anterior projection; rostrum reaching the middle third or posterior edge of abdominal sternite III; rostral segment I reaching anterior margin of prosternum.

Thorax: Pronotum wider than long, trapeziform, with disc transversely cleft behind the callar region, leaving anterior and posterior thirds raised; anterior collar wide; frontal angles produced forward as conical teeth; anterolateral border weakly sinuate; humeral angles rounded, not exposed; posterolateral and posterior border straight; callar region transversely convex, separated along the middle line by a slight depression; posterior margin with a transverse ridge, distinctly raised. Anterior lobe of metathoracic scent gland globose and reniform, posterior lobe sharp, small.

Legs: Femora unarmed; tibiae terete, sulcate and more slender than femora.

Scutellum: Triangular, flat, wider than long, with apex acute.

Hemelytra: Macropterous, reaching middle third of posterior margin of the last abdominal segment; claval suture evident; apical margin obliquely straight, with a short apical angle not reaching the middle third of the hemelytral

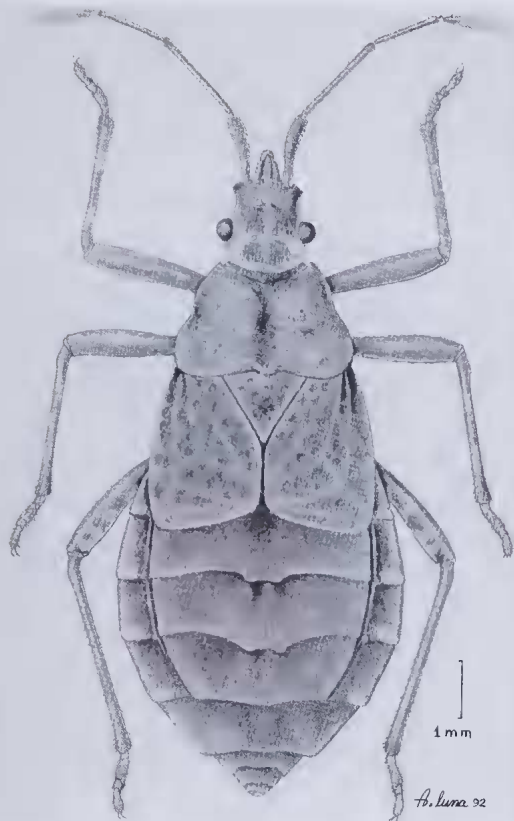


FIG. 7. Dorsal view of *Grosshygioides mandibularis* sp. nov., ♀.

membrane; costal margin emarginate; hemelytral membrane with few bifurcate veins.

Abdomen: Connexival segments higher than body; posterior angle of connexival segments not produced into spines.

Integument: Body surface dull, covered by adpressed small hairs, not distinctly hairy. Pronotum (except callar region), scutellum, clavus, corium, thorax, abdominal sternites and exposed parts of genital segments of both sexes strongly punctate; head, antennae and legs minutely granulate.

Male genitalia: Genital capsule: Posteroventral border simple, truncate, with lateral borders weakly elongate (Fig. 4G).

Female genitalia: Abdominal sternite VII with plica and fissura; plica transversely broad, but never reaching the middle of the segment; gonocoxae I squarish, medium size, with a convex protruding external margin; paratergite VIII short, square, with visible spiracle; paratergite IX



FIG. 8. Dorsal view of *Pachycolpuroides monteithi* sp. nov., ♂.

squarish and larger than former paratergite (Fig. 4E,F).

TYPE SPECIES

Hygia (*Australocolpura*) *sandaracine* sp. nov.

DIAGNOSIS

Hygia Uhler, contains nine subgenera, *Caracolpura* Breddin, *Colpura* Bergroth, *Eucolpura* Breddin, *Hygia* Uhler, *Microcolpura* Breddin, *Pterocolpura* Blöte, *Sphinctocolpura* Breddin, *Stenocolpura* Breddin and *Trichocolpura* Breddin, and approximately 72 species, widely distributed in the Oriental Region throughout Japan, China, Taiwan, India, Burma, Assam, Korea, Cambodia, Malacca, Sarawak (Borneo), West Malaysia, Sumatra, Singapore, Java, Philippines, Sulawesi (Celebes), Mentawai and New Guinea.

Hygia (*Australocolpura*) subgen. nov. is related to *Hygia* (*Caracolpura*), the only species of which *H. (C.) planiceps* (Breddin) occurs in

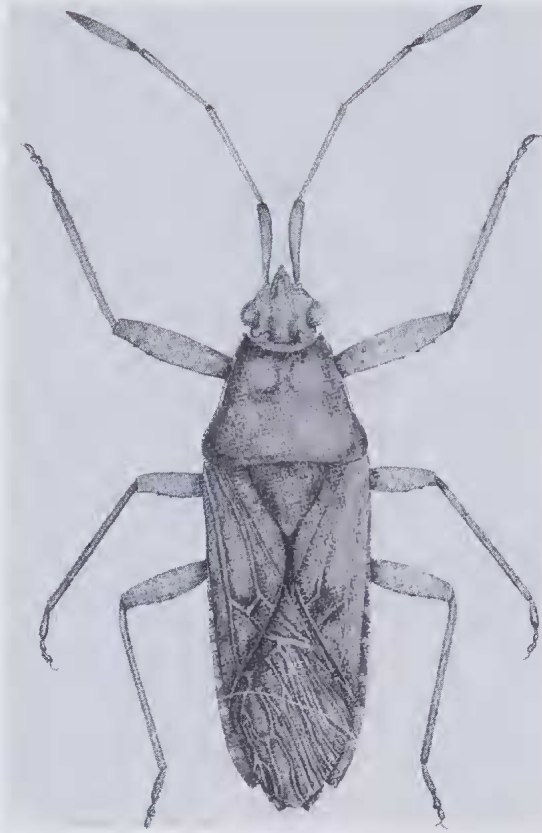


FIG. 9. Dorsal view of *Woodwardhygia bifida* sp. nov., ♀.

Sulawesi, sharing with it the following characters: 1. Body covered by adpressed small hairs, not distinctly hairy. 2. Genae completely unarmed. 3. Head not elongated, wide, above completely flat and the disc of frons not higher than eyes. 4. Femora unarmed. 5. Antenniferous tubercle unarmed. 6. Tylus globose or truncated. 7. Plica of abdominal sternite VII of the female transversely broad, but never surpassing the middle of that segment.

Members of this new subgenus are distinguished by the following combination of characters: anterior angle of the bucculae projecting as a small spine, corium without black spot, antennal segment III shorter than IV, transverse ridge of posterior border of pronotum quite raised; general body coloration is pale orange yellow. In *Hygia* (*Caracolpura*) the middle third of the bucculae projects as a large and acute spine, the apex of corium with a dark black spot, antennal segment III larger than IV, posterior border of pronotum

not raised and general body coloration dark brown or black, with or without pale areas.

ETYMOLOGY

Named for its occurrence in Australia.

Hygia (*Australocolpura*) *sandaracine* sp. nov. (Figs 4E,G, 11D, 16A)

MATERIAL EXAMINED

HOLOTYPE ♂: NSW: New England NP, 15.i.1978, E.J. Schlinger, in QMBA (T12713).

PARATYPE: 1 ♀: same as holotype, in CAS.

DESCRIPTION

Coloration: Pale orange yellow with following areas dark brown or black: apex of rostral segment IV, a large spot located below the spiracle of abdominal sternites III to VI, the genital capsule and a few scattered spots into the abdominal sternites III to VII; antennal segments I to III dark orange yellow and IV dark orange yellow with a wide subapical yellow ring; hemelytra membrane amber with veins pale yellow and following areas pale brown: basal margin and few cells into the disc; connexival segments orange brown, with posterior edge yellow; abdominal segments yellow with bright orange red reflections; anterior and posterior lobe of the metathoracic scent glands creamy yellow, punctures hazel orange.

Female: Same colour as male. Transverse carina of the posterior margin of pronotum, anterior third of claval suture and femora with bright red orange reflections; abdominal segments VIII-IX and abdominal sternites VIII-IX dark orange brown with connexival and pleural margins yellow ochre.

Measurements: ♂ first, then ♀: Head length: 1.33 1.48; interocular space: 0.41, 0.48; interocular space: 0.89 1.01; width across eyes: 1.60, 1.76; preocular distance: 0.81, 0.89; length antennal segments: I, 1.22, 1.20; II, 1.72, 1.84, III, 1.20, 1.32; IV, 1.36, 1.41. Pronotum: Total length: 1.62, 1.96; width across frontal angles: 1.44, 1.60; width across humeral angles: 2.72, 3.08. Scutellar length: 1.14, 1.20; width: 1.32, 1.32. Total body length: 9.30, 10.65.

DISTRIBUTION

Known from a single pair from the high New England Tableland, NENSW (Fig. 64). The two specimens were collected in *Nothofagus* forest.

ETYMOLOGY

From the greek sandaracinos, orange coloured.

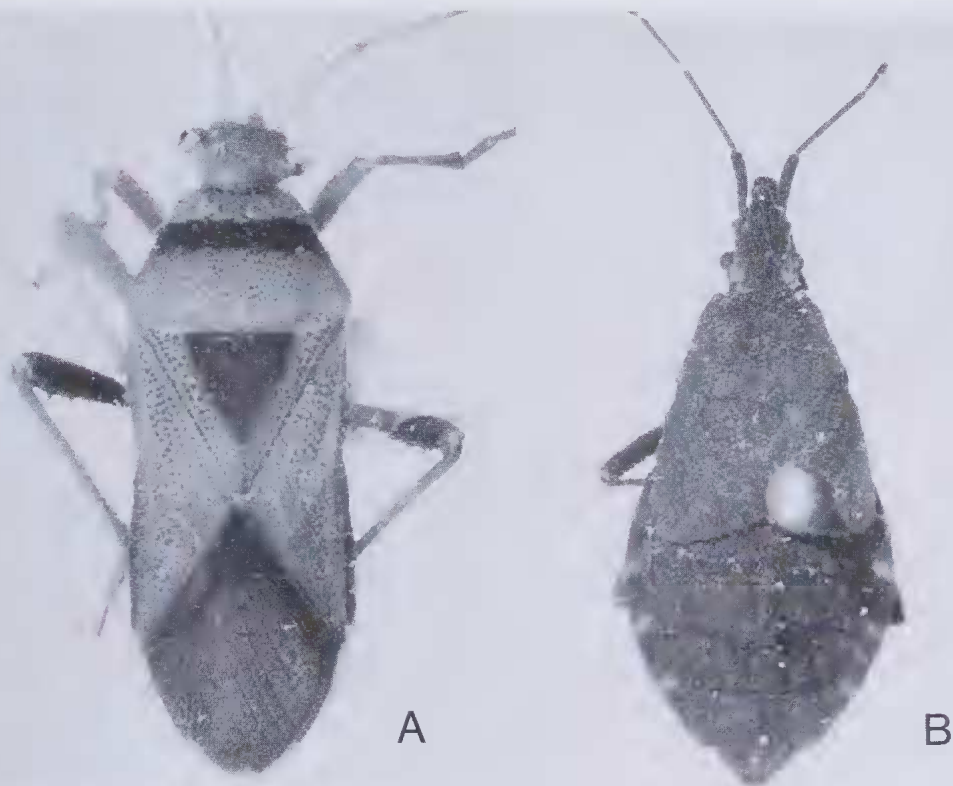


FIG. 10. Dorsal views, *Agathyrna praezellens* Stål ♂, (A), *Grosshygioides mandibularis* sp. nov., ♀ (B), *Acanthotyla fasciata* (Walker) ♀ (C).

***Pachycolpuroides* gen. nov.**

DESCRIPTION

Head: Wider than long, pentagonal to subquadrate, scattered punctate and dorsally slightly convex; tylus unarmed, apically globose, extending anteriorly to the jugae and when viewed laterally practically level with them; jugae unarmed, thick and shorter than tylus; antenniferous tubercles armed with a long robust spine; sides of head in front of eyes unarmed; antennal segment I the shortest and shorter than head; segment II longest of all; segment IV longer than III; antennal segment I is the most robust, terete and somewhat curved outwards; segment II and III terete and slender; segment IV fusiform; ocelli not raised and based on an hypothetical line, the superior margin hardly in contact with eyes; preocellar pit deep and diagonally excavated; eyes elongate; postocular tubercle prominent; bucculae rounded, short, not projecting beyond



antenniferous tubercle without teeth and with the external edges thickened; rostrum reaching the anterior margin of metasternum; rostral segment I reaching anterior margin of prosternum; rostral segment II longest; rostral segment I longer than IV and subequal to II and IV longer than III which is the shortest of all.

Thorax: Pronotum trapeziform, declivent, wider than long; collar distinct; frontal angles produced forward as conical teeth; anterolateral border obliquely straight; humeral angles rounded, not exposed, feebly convex in lateral view; posterolateral border and posterior border straight; callar region transversely convex, separated along the middle line by a slight depression. Anterior lobe of the metathoracic scent gland elevated, globose and reniform, posterior lobe sharp and small.

Legs: Unarmed; tibiae terete, sulcate and more slender than femora.

Scutellum: Triangular, flat, wider than long with apex acute.

Hemelytra: Macropterous condition (in both sexes) reaching posterior margin of abdominal segment VII; claval suture evident; apical margin obliquely straight, with a short apical angle, not reaching the middle third of the hemelytral membrane; costal margin slightly emarginate; hemelytral membrane composed of hexagonal or quadrate or elongate cells. Submacropterous condition (in both sexes): Reaching anterior or posterior margin of abdominal segment VI; clavus and corium clearly differentiated; membrane well developed, without cells and with only a few bifurcate veins (Fig. 12C,D).

Abdomen: Connexival segments higher than body, with posterior angles not produced into spines.

Male genitalia: Genital capsule: Posteroventral edge complete, thickened and with a slight median depression. Parameres. Body robust, with anterior lobe slightly convex and posterior lobe long and thick (Fig. 6G,H).

Female: Abdomen: Sternite VII complete, without plica or fissura. Genital plates: Gonocoxae I relatively short, oblique, with a concave and protruding external margin; paratergite VIII conspicuously short, square, with visible spiracle; paratergite IX elongated, with rounded margin that encompasses sternite X.

DIAGNOSIS

Externally this new genus resembles the general shape and colour pattern of *Pachycolpura* Breddin, which is the only genus within the tribe

Colpurini that exhibits a long, pointed spine on the side of the head in front of the eyes.

In *Pachycolpuroides*, the frontal angle of the pronotum is produced forward as a conical tooth, the bucculae is uniformly rounded, the tylus is level with the jugum, the antenniferous tubercle is armed with a long spine and the abdominal sternite VII of the female complete without plica or fissura. In *Pachycolpura* the frontal angle is blunt and not protruding, the anterior angle of the bucculae is sharply protected, the tylus more raised than jugum, the antenniferous tubercle unarmed and truncated and sternite VII is totally cleaved (fissured) dividing the sternite into two parts with plica very short, sometimes difficult to see.

Like *Acantholybas* Stål this genus has the antenniferous tubercle armed, the femora unarmed and the abdominal sternite VII of the female complete without plica or fissura. *Pachycolpuroides* may be recognized by its short length, robust body, bucculae rounded without teeth or spiny projection, rostrum not extending beyond the anterior margin of metasternum, scutellum wider than long and the hemelytra with macropterous or submacropterous condition. In *Acantholybas* the body is large and a little more slender, the bucculae armed with a clear spine near the middle third, rostrum reaching the posterior border of abdominal sternite IV, scutellum longer than wide and the hemelytra always macropterous.

ETYMOLOGY

Named for its external similarity to *Pachycolpura*.

TYPE SPECIES

Pachycolpuroides monteithi sp. nov.

Pachycolpuroides monteithi sp. nov.

(Figs 6G,H, 8, 12C,D, 16B)

MATERIAL EXAMINED

HOLOTYPE ♂: Brisbane, 2.i.1963, GBM in QMBA (T12714).

PARATYPES: SEQ: 3 ♂♂, 5 ♀♀: Brisbane, vii.1956, J.C. Donahue, 12.v.1959, B. Wilson, 9.iii.1956, H.J. Lavery, 5.iv.1964, A.E. May, iii.1955, N.J. Thompson, 30.vi.1966, B.K. Cantrell, 21.x.1956, T.A. Bull, 3 ♂♂ & 4 ♀♀ in UQIC & 1 ♀ in IBUNAM. 1 ♂: Bunya Mts, 14-15.x.1972, B.K. & J.A. Cantrell in UQIC. 1 ♀: Millaa Millaa, 9.i.1964, GBM in UQIC. 1 ♂: Lamington NP, 17-24.v.1965, GBM in UQIC. 1 ♂, 2 ♀♀: Mt Glorious, 5-15.vii.1964, T. Weir, 13.ix.1966, GBM, 1 ♂ & 1 ♀ in UQIC & 1 ♀ in IBUNAM. 3 ♂♂, 2 ♀♀: NSW: Ebor, II.iv.1966, GBM, B. Cantrell & T. Weir, 2 ♂♂ & 1 ♀ in UQIC & 1 ♂ & 1 ♀ in IBUNAM.

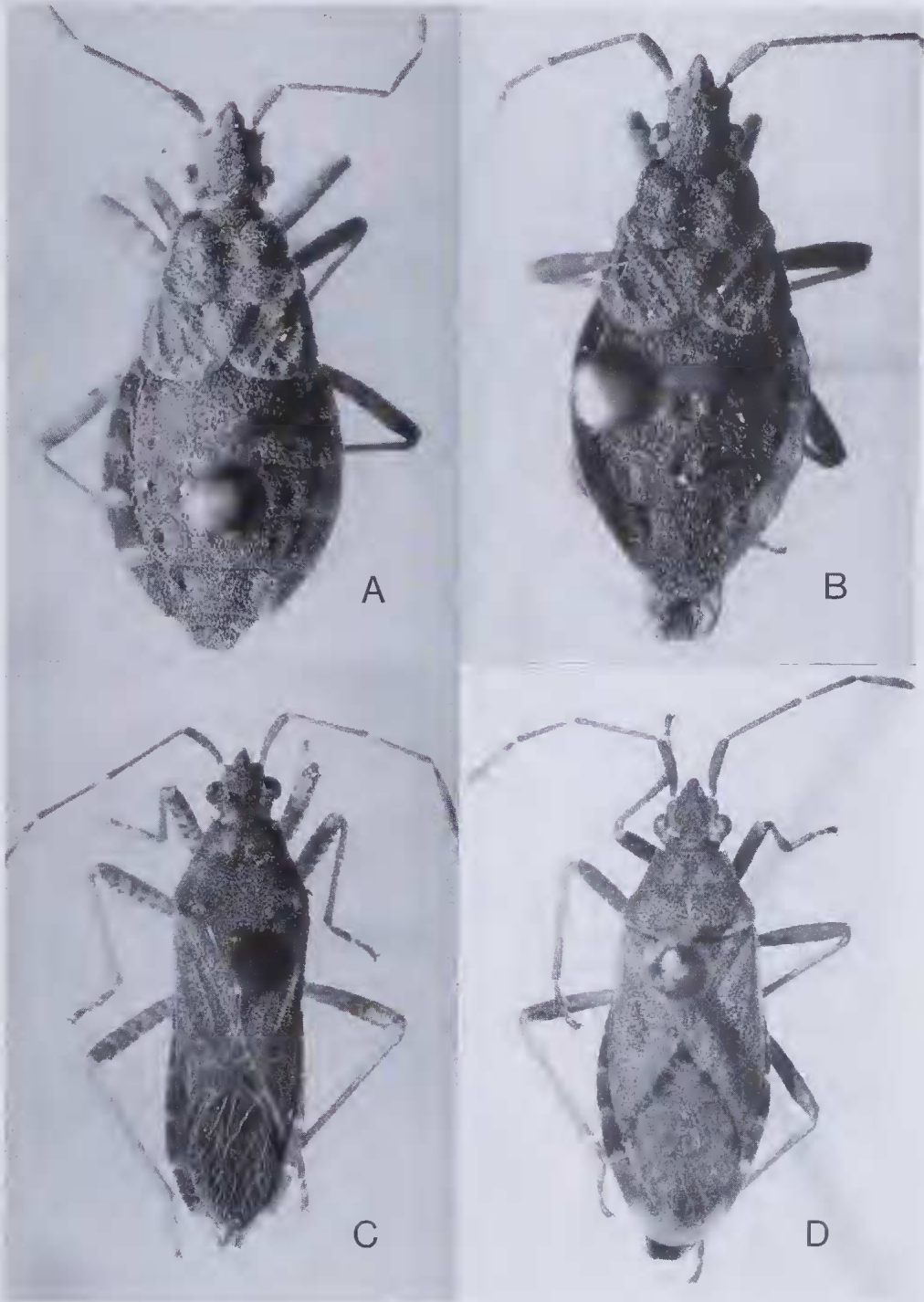


FIG. 11. Dorsal views, *Grosshygia lobatula* sp. nov., ♀ (A), *G. monticeps* sp. nov., ♂ (B), *Woodwardhygia bifida* sp. nov., ♂ (C), *Hygia (Australocolpura) sandaracine* sp. nov., ♂ (D).

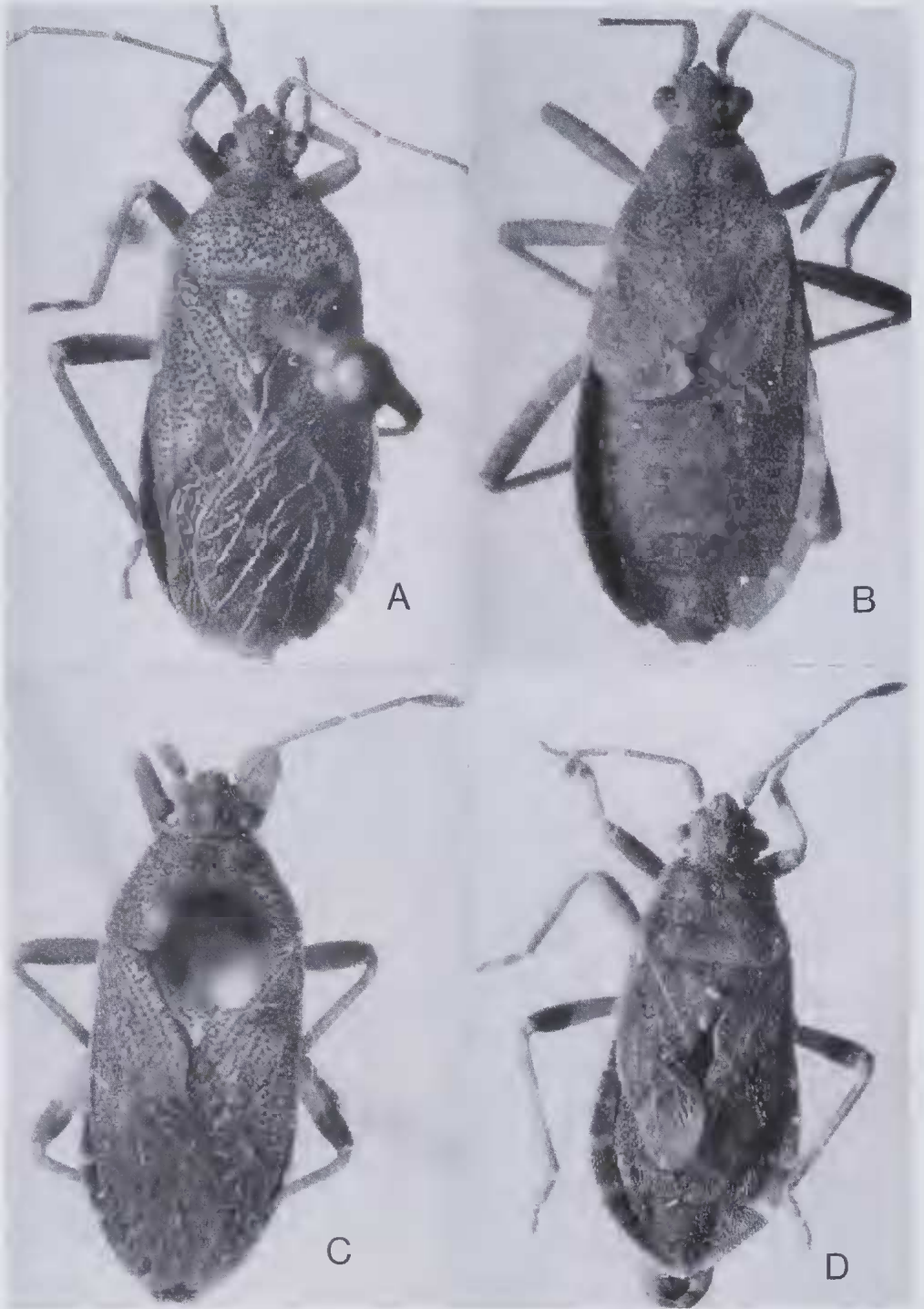


FIG. 12. Dorsal view *Pachycolpura manca* Breddin; macropterous, ♀ (A), brachypterous, ♀ (B); *Pachycolpuroides monteithi* sp. nov.; macropterous ♂ (C), submacropterous ♂ (D).

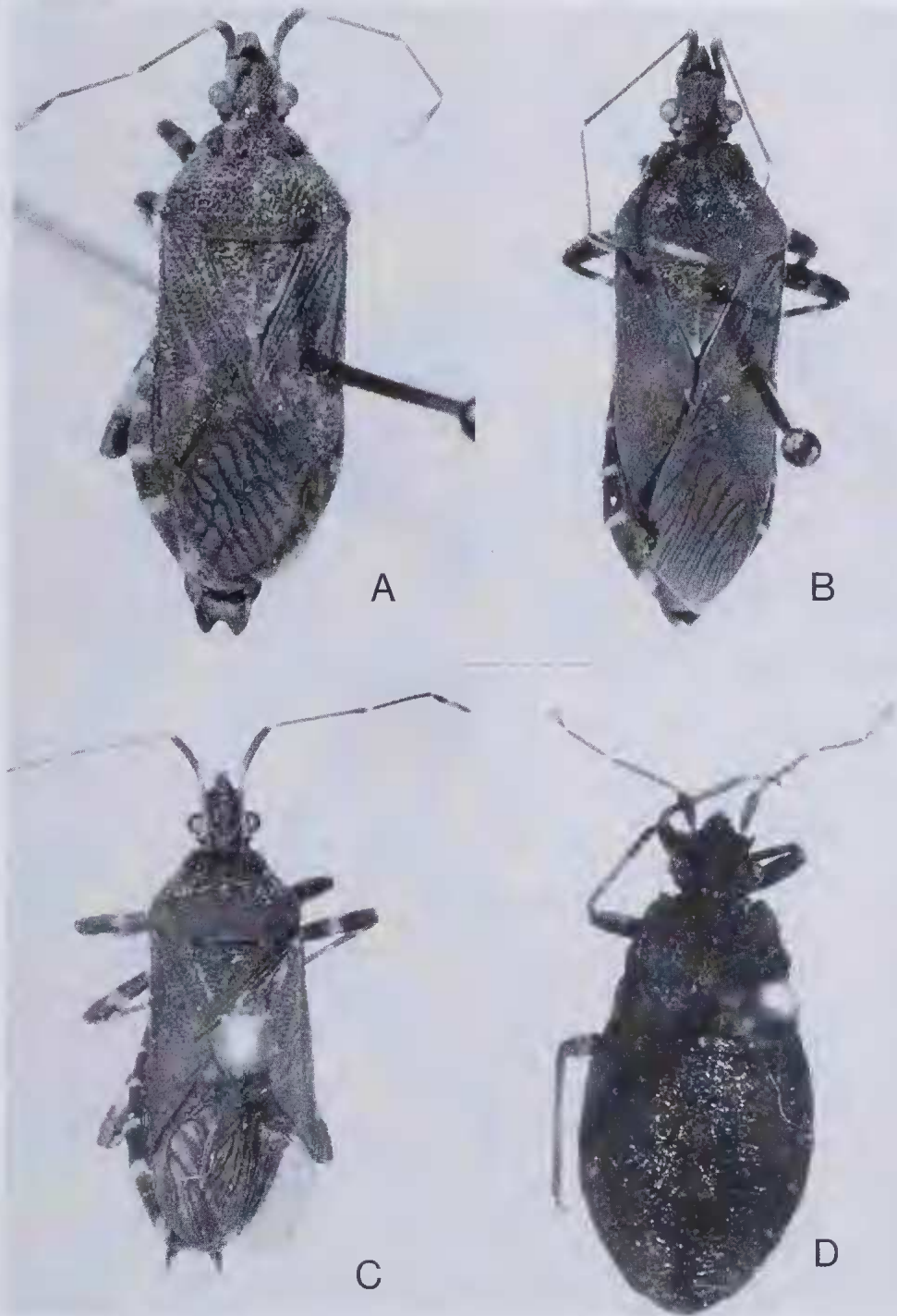


FIG. 13. Dorsal view *Sciophyrus* spp.; *S. diminutus* Horvath ♂ (A), *S. sortita* (Horvath) ♂ (B), *S. australicus* sp. nov. ♂ (C); *Grosshygia nigra* sp. nov. ♂ (D).

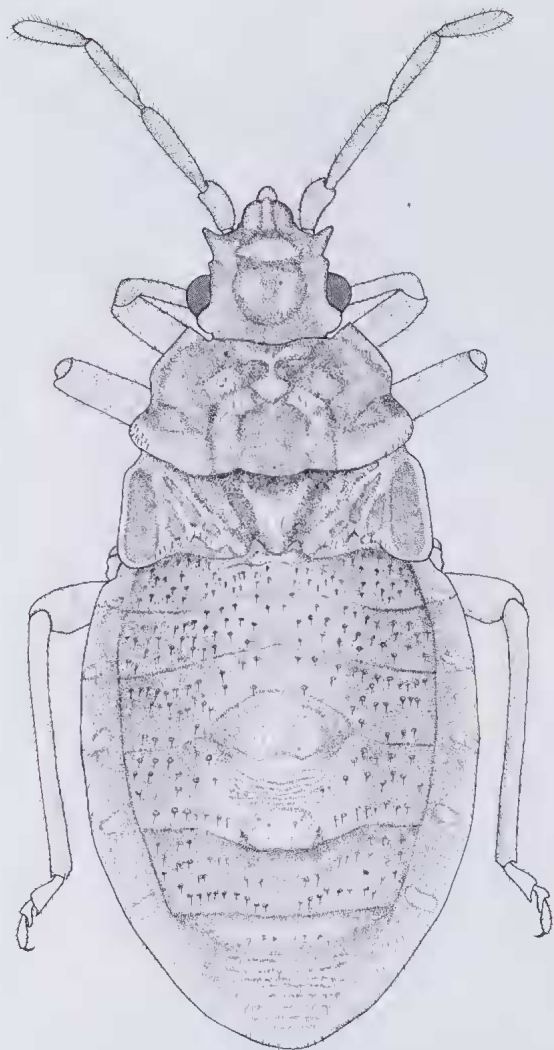


FIG. 14. Dorsal view of *Grossshygia nigra* sp. nov., ♂.

DESCRIPTION

Dorsal coloration: Pale yellow with following areas pale red orange: two wide bands running laterally along cephalic middle line, antennal segments II and III and the intercallar space; antennal segment IV bright orange yellow, with base bright red orange; postocular tubercle and apex of scutellum creamy white; hemelytral membrane amber brown with pale ochre veins; connexival segments brown red orange with posterior edge pale yellow; dorsal abdominal segments bright orange brown with yellow reflections; punctures of pronotum, scutellum, clavus and corium hazel orange or pale brown. Ventral coloration: Pale yellow with orange reflections; punctures

hazel orange or pale brown or dark red brown; following areas black: discoidal spot in the anterior angle of mesothorax, two lateral spots on mesosternum and a line of discoidal spots running near the pleural margin of abdominal sternites III to VII; abdominal sternites III to VII with several red brown spots, irregularly scattered; coxae bright pale orange; trochanters bright yellow with red orange reflections; anterior and middle femora pale orange; posterior femora yellow with apical third and few spots pale orange; tibiae yellow with two pale orange rings, one subbasal and the other one distal; tarsi yellow with orange reflections; rostral segments I and II pale yellow and III-IV hazel yellow; anterior and posterior lobe of the metathoracic scent gland creamy white.

Female: Coloration: Similar to male. Abdominal segments VIII and IX and genital plates pale yellow with orange reflections.

Variation: The type material exhibits some colour variation on most specimens: 1. Antennal segment I bright orange red or pale yellow ochre. 2. Antennal segment IV bright orange red with apex bright orange yellow. 3. Dorsal pale orange red coloration replaced by pale brown hues. 4. Hemelytral membrane pale yellow or pale amber yellow with cells pale brown. 5. Dorsal abdominal segments dark red brown with middle portion bright orange with yellow reflections. 6. Prothorax, mesothorax and metathorax with black irregular spots. 7. Ventral granules of femora dark red brown. 8. Anterior edge of prosternum bright red brown. 9. Coxae bright red brown.

Measurements: ♂ macropter, ♂ submacropter, ♀ macropter and ♀ submacropter: Head length: 0.99, 0.96, 1.09, 0.99; subocular space: 0.49, 0.43, 0.48, 0.46, interocular space: 0.91, 0.82, 1.01, 0.86; width across eyes: 1.45, 1.30, 1.53, 1.39; preocular distance: 0.66, 0.65, 0.71, 0.63; length antennal segments: I, 0.68, 0.58, 0.74, 0.65; II, 1.06, 0.83, 1.09, 0.86; III, 0.89, 0.71, 0.96, 0.71; IV, 0.89, 0.80, 0.93, 0.83. Pronotum: Total length: 1.70, 1.24, 1.86, 1.33; width across frontal angles: 1.39, 1.33, 1.42, 1.36; width across humeral angles: 2.72, 2.17, 3.03, 2.26. Scutellar length 1.30, 0.89, 1.42, 0.96; width: 1.45, 0.99, 1.64, 1.11. Total body length: 7.18, 6.18, 8.44, 6.70.

DISTRIBUTION

From the New England Tableland, NSW to Brisbane and the Bunya Mts, SEQ (Fig. 16B).

ETYMOLOGY

Named for Dr G.B. Monteith, Australian

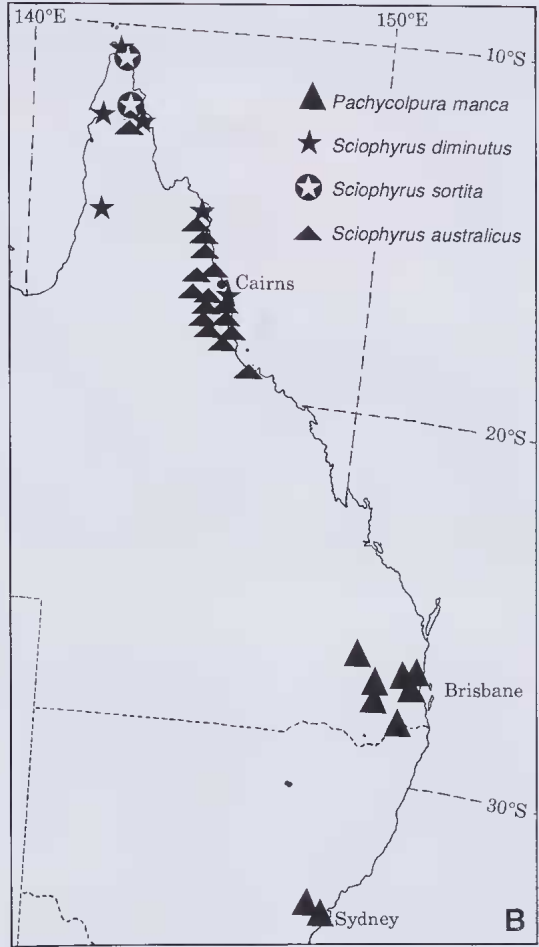
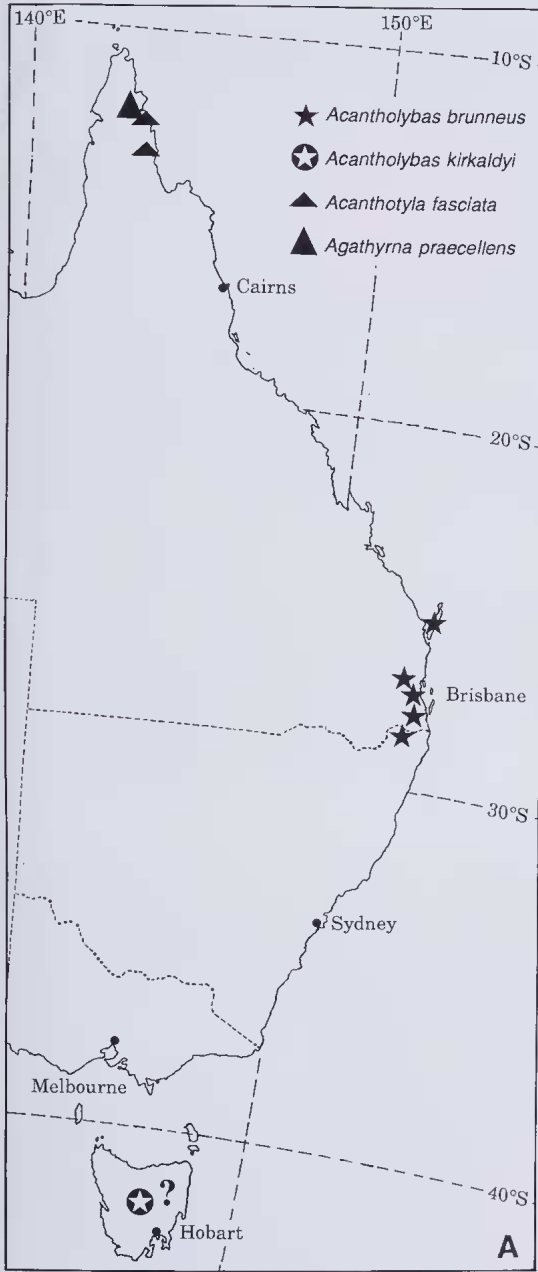


FIG. 15. Distributions, *Acantholybas brunneus* Bredin *Acantholybas kirkaldyi* Bergroth, *Acanthotyla fasciata* (Walker), *Agathyrna praezellens* Stål. (A); *Pachycolpura manca* Bredin, *Sciophyrus diminutus* Horvath; *Sciophyrus australicus* sp. nov. *Sciophyrus sortita* (Horvath) (B).

hemipterist of the Queensland Museum, and friend for many years.

Woodwardhygia gen. nov.

DESCRIPTION

Head: Wider than long, pentagonal and dorsally slightly convex; tylus unarmed, apically bifid,

extending anteriorly to the jugae and more raised when viewed laterally; jugae unarmed, slightly thicker and shorter than tylus; antenniferous tubercles unarmed, with apex truncate; sides of head in front of eyes unarmed, straight and shorter than total length of eye; antennal segment I the shortest, robust, thickest, slightly curved outwards and equal or a little shorter than head; segments II and III terete and slender; segment IV fusiform; antennal segment II the longest, segment III longer or shorter than IV; ocelli conspicuously evident, raised and based on a hypothetical line with the superior margin just

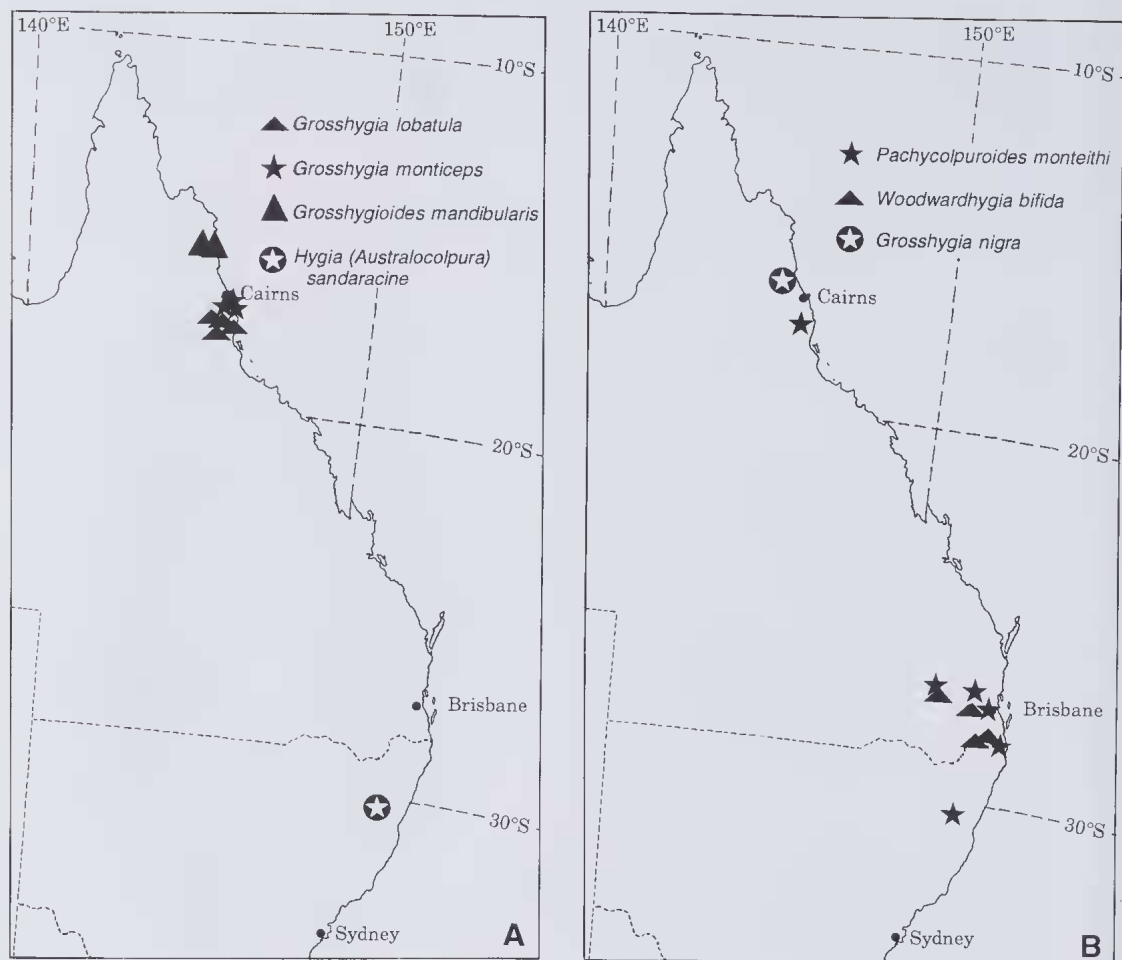


FIG. 16. Distributions, *Hygia (Australocolpura) sandaracine* sp. nov., *Grossshygia lobatula* sp. nov., *G. monticeps* sp. nov., *Grossshygioides mandibularis* sp. nov., (A); *Pachycolpuroides monteithi* sp. nov., *Woodwardhygia bifida* sp. nov., *Grossshygia nigra* sp. nov. (B).

touching the inferior border of the eyes; preocellar pit deep and circular; eyes substylate; postocular tubercles protuberant; bucculae rounded, short, not extending beyond antenniferous tubercle, with sharp spiny anterior projection; rostrum long, reaching the medial third of abdominal sternite IV; rostral segment II longest, I longer than IV and IV longer than III, which is the shortest; rostral segment I reaching anterior margin of prosternum.

Thorax: Pronotum wider than long, trapeziform, moderately declivent; anterior collar wide; frontal angles produced forward as conical teeth; anterolateral border obliquely straight; humeral angles rounded not exposed; postrolateral and posterior borders straight; cal-

lar region transversely convex, separated along the middle line by a slight longitudinal depression. Anterior lobe of metathoracic scent gland globose and reniform, posterior lobe sharp, small.

Legs: Femora with two rows of small spines and granules along ventral surface; tibiae terete, sulcate and more slender than femora.

Scutellum: Triangular, flat, wider than long, with apex subacute.

Hemelytra: Macropterous, reaching posterior margin of the last abdominal segment or extending beyond the apex; claval suture evident; apical margin obliquely straight with a short apical angle not reaching the middle third of the hemelytral membrane; costal margin emarginate; hemelytral membrane with few bifurcate veins.

Abdomen: Connexival segments higher than body, with posterior angles not produced into spines: abdominal sternites with medial furrow extending to posterior border of sternite IV or V.

Integument: Body surface rather dull. Head, pronotum, scutellum, clavus, corium, thorax, abdominal sterna and exposed parts of genital segments of both sexes strongly punctate; antennae and legs minutely granulate. Head, pronotum, scutellum clavus, corium, thorax and abdominal sterna with short decumbent silvery bristle-like hairs, intermixed with a few long erect hairs located on the abdominal sterna.

Male genitalia: Genital capsule: Posteroventral edge elongate and bifurcated, with a short depression between the two lobes (Fig. 4A,B). Parameres: body simple and straight; apical projection short with anterior lobe convex and continuous with the body and posterior lobe short and slender (Fig. 6A,B).

Female genitalia: Abdominal sternite VII with plica and fissura; plica narrow, elevated and transversely evolved; gonocoxae I relatively short, with a convex protruding external margin; paratergite VIII short square, with visible spiracle; paratergite IX squarish and larger than former paratergite (Fig. 4C,D).

DIAGNOSIS

Woodwardhygia gen. nov., most closely resembles *Homalocolpura* Breddin, including the femora armed with two rows of ventral spines, antenniferous tubercle and tylus unarmed and the abdominal sternite VII of the female with plica and fissura.

In *Woodwardhygia* the anterior angle of the bucculae is sharply projected, the tylus apically bifid, antennal segment II longer than IV, rostrum shorter, reaching the medial third of abdominal sternite VI, the femora and tibiae are longer and more slender and the plica narrow and transversely evolved. In *Homalocolpura* the bucculae are uniformly rounded, the tylus is apically rounded or truncated, antennal segment II is shorter than IV, rostrum longer, reaching or extending beyond the apex of the last abdominal sternite and the plica is wider and triangular.

An additional character to separate the two genera is the coloration. In *Homalocolpura* the total body surface is bright and highly polished with femora unspotted, vs a dull body surface, with femora spotted with dark red brown discoidal spots in *Woodwardhygia*.

ETYMOLOGY

Named for the late Dr T.E. Woodward, distinguished Australian hemipterist.

TYPE SPECIES

Woodwardhygia bifida sp. nov.

***Woodwardhygia bifida* sp. nov.**
(Figs 4A-D, 6A,B, 9, 11C, 16B)

MATERIAL EXAMINED

HOLOTYPE ♂: NSW: Tooloom Plateau, via Urbenville, 31.x.1970, GBM in QMBA (T12715).

PARATYPES: 1 ♂, 4 ♀♀: same as holotype; 1 ♂ & 2 ♀♀ in UQIC & 2 ♀♀ in IBUNAM. SEQ: 3 ♂♂, 2 ♀♀: Bunya Mts, 14.xii.1937, F.A. Perkins, 5.vi.1959, I.C. Yeo & F. McDonald and 18-19.x.1972 B. Cantrell 2 ♂♂ & 2 ♀♀ in UQIC & 1 ♂ in IBUNAM. 1 ♂: Lamington NP, 19-22.v.1963, H.A. Rose in UQIC. 1 ♂: Tomewin Ra., Upper Currumbin, 17.v.1988, GBM in IBUNAM. 1 ♂: Brisbane, 6.v.1953, Y. Beri in UQIC. 1 ♀: no locality or date in UQIC.

DESCRIPTION

Dorsal coloration: Pale orange brown with following areas yellow or yellow ochre: jugae, a short longitudinal band running between eye and ocelli up to posterior edge, postocular tubercle, most of the anterolateral borders of pronotum, a short longitudinal stripe on middle pronotal disc, apex of scutellum and posterior margin of connexival segments III to VII; tylus and vertex dark brown; ocellar tubercle, internal and external border of callus and irregular spots on corium black; antennal segments, I to III pale orange yellow with red brown spots on I; segment IV bright red brown with a subbasal bright orange yellow ring; hemelytral membrane brown with basal veins yellow; abdominal segments I to III and VII black and IV to VI bright orange yellow; punctures dark red brown or pale orange hazel. Ventral coloration: yellow to creamy yellow with following areas black: a small spot located on prothorax, mesothorax and abdominal sterna III to VI; rostral segment I yellow ochre and II to IV orange hazel; coxae and trochanters yellow; femora yellow and densely covered with dark red brown discoidal spots; tibiae and tarsi pale yellow orange with dark red brown granules; anterior lobe of metathoracic scent gland creamy yellow and posterior lobe brown hazel; punctures orange hazel; abdominal sterna scattered with pale red brown spots.

Female: Coloration: Similar to male. Abdominal segments VIII and IX black; genital plates yellow, with punctures orange hazel;

paratergite VIII and IX with or without pale red brown discoidal spot.

Measurements: ♂ first, then ♀ : Head length: 1.45, 1.68; interocellar space: 0.49, 0.64; interocular space: 0.84, 1.01; width across eyes: 1.64, 1.88; preocular distance: 0.89, 1.01; length antennal segments: I, 1.44, 1.68; II, 2.04, 2.64; III, 1.64, 2.00; IV, 1.83, 1.90. Pronotum: Total length: 2.08, 2.84; width across frontal angles: 1.48, 1.82; width across humeral angles: 3.04, 3.88. Scutellar length: 1.48, 1.80; width 1.56, 1.92. Total body length: 11.30, 13.40.

DISTRIBUTION

From mountains and plateaux in NENSW and SEQ (Fig. 16B). One specimen labelled 'Brisbane' needs confirmation.

ETYMOLOGY

Named for the bifid apex of its tylus.

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The following individuals and institutions provided loans and other assistance: Dr Gordon Nishida (BPBM), Mrs Margerison Knight (BMNH) Dr Norman D. Penny (CAS), Dr Andreas Taeger (DEI), Drs Gordon F. Gross, E.G. Matthews and K.L. Gowlett Holmes (SAMA), Mr T. Weir (ANIC), Dr G.B. Monteith (QMBA), Miss Margaret Schneider (UQIC), Dr I.M. Kerzhner (ZIL) and Dr Antti Janson (ZMUH). Biol. Ernesto Barrera, Mrs Elvia Esparza, Mr Felipe Villegas, Biol. Cristina Mayorga, Biol. Laura Gonzalez Garcia and Biol. Albino Luna (IBUNAM) prepared the dorsal view illustrations and genital drawings. To the Consejo Nacional de Ciencia y Tecnología, México (CONACyT) and Dirección General del Personal Académico de la Universidad Nacional Autónoma de México (DGPA) provided financial assistance. Dr G.B. Monteith commented on the manuscript. The distribution maps were drawn by Mr G.I. Thompson, Queensland Museum.

LITERATURE CITED

- BERGROTH, E. 1909. Hemiptera Nova Orientalia. *Annales de la Societe Entomologique de Belgique* 53: 184-190.
- BLÖTE, H.C. 1936. Catalogue of the Coreidae in the Rijksmuseum van Natuurlijke Historie. Part III, Coreinae, Second Part. *Zoologische Mededelingen* 19: 23-66.
- BRAILOVSKY, H. 1990. Three new species of Indo-Pacific Colpurini (Hemiptera: Heteroptera: Coreidae). *Pan-Pacific Entomologist* 66(4): 292-300.
- BREDDIN, G. 1900. Hemiptera nonnulla regionis Australicae (figuris duodecim illustrata). *Entomologische Nachrichten* 26: 17-46.
1909. Hemiptera insulae Lombok in Museo Hamburgense asseruata adiectis speciebus nonnullis, quas continent collectio auctoris. *Mitteilungen aus dem Naturhistorischen Museum in Hamburg* 16: 155-194.
- DOLLING, W.R. 1987. A mimetic coreid bug and its relatives (Hemiptera: Coreidae). *Journal of Natural History* 21: 1259-1271.
- HORVATH, G. 1900. Hemiptera. *Denkschriften der Naturforschenden Gesellschaft Jena* 8: 629-642.
1919. Hemipteren von den Aru- und Kei Inseln. *Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft* 35 (3): 305-314.
- KUMAR, R. 1966. Studies on the biology, immature stages and relative growth of some Australian bugs of the Superfamily Coreoidea (Hemiptera: Heteroptera). *Australian Journal of Zoology* 14: 895-991.
- SLATER, J.A. 1975. On the biology and zoogeography of Australian Lygaeidae (Hemiptera: Heteroptera) with special reference to the southwest fauna. *Journal of the Australian Entomological Society* 14: 47-64.
- STÅL, C. 1861. *Miscellanea hemipterologica*. *Stettiner Entomologische Zeitung* 22: 129-153.
1873. *Enumeratio Hemipterorum III. Enumeratio Coreidarum Africae, Asiae et Australiae*. *Kongliga Svenska Vetenskaps Akademiens Handlingar* 2(2): 33-163.
- WALKER, F. 1871. Catalogue of the specimens of Hemiptera Heteroptera in the Collection of the British Museum. Part IV. London: 1-211.